

# 36<sup>th</sup> Annual Report 2016-17

Taking off to new horizons of  
**excellence** and  
**innovation**

**नलको**  **NALCO**  
National Aluminium Company Limited  
A NAVRATNA CPSE



*To be a reputed  
Global Company in the  
Metals and Energy Sectors.*



## The Year at a Glance

PARTICULARS	UNIT	2016-17
<b>PHYSICAL</b>		
Bauxite	MT	68,25,000
Alumina Hydrate	MT	21,00,100
Aluminium	MT	3,87,422
Power (net)	MU	6,066
Wind Power	MU	198
<b>FINANCIAL</b>		
Export Turnover	₹ in crore	3,625
Gross Sales	₹ in crore	7,933
Profit Before Tax	₹ in crore	965
Profit After Tax	₹ in crore	669
Earning Per Share	₹	2.98
Book Value per Share	₹	52.80
Dividend	₹ per Share	2.80

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### REGISTERED OFFICE & CORPORATE OFFICE

NATIONAL ALUMINIUM COMPANY LIMITED  
 NALCO Bhawan, Plot No. P/1, Nayapalli  
 Bhubaneswar - 751 013, Odisha  
 Tel. : 0674-2301989-99, Fax : 0674-2300677  
 Email: company\_secretary@nalcoindia.co.in  
 Website : www.nalcoindia.com

### 36<sup>th</sup> Annual General Meeting

Saturday, the 23<sup>rd</sup> September, 2017 at 11.00 A.M.  
 at NALCO Bhawan, P/1, Nayapalli,  
 Bhubaneswar - 751 013.



## Board of Directors

### Dr. Tapan Kumar Chand

#### Chairman-cum-Managing Director



Dr. Tapan Kumar Chand joined the company as Chairman-cum-Managing Director on 27.07.2015. He is a Post Graduate in History and Public Administration from Utkal University. He also holds a Bachelor's degree in Law from Andhra University and DSW (Diploma in Social Welfare) from Calcutta University. He has been conferred with "D.Lit, the highest honour of Utkal University in recognition of his outstanding contribution

towards Industry, Business Management & Nation Building. He has also been conferred with highest management award 'Ravi J Matthal National Fellow Award' by Association of Indian Management Schools. National Institute of Personnel Management (NIPM) has conferred him National Fellow Award for his distinct contribution in the field of Human Resource Management

An outstanding scholar and gold medalist in his student career, he has undergone training in International Centre for Promotion of Enterprises in Slovenia and Queensland University of Technology, Australia. He received Jawaharal Nehru Award for outstanding performance as a Professional.

Dr Chand is a highly competent and experienced professional having more than 30 years of rich experience in Mining and Metal Sector, out of which 8 years are at the helm of Affairs as Director in Coal & Steel sector.

He has been elected as the President of Aluminum Association of India. He is also the Chairman of Confederation of Indian Industry (CII)-Odisha State Council.

Dr. Chand has authored a book named 'ALUMINIUM-The Strategic Metal', well acclaimed by engineers, entrepreneurs, researchers, educationists & the corporate world.



### Shri K C Samal

#### Director (Finance)



Shri K.C.Samal is the Director (Finance) of the Company since 03.01.2014. A Fellow Member of Institute of Cost Accountants of India, Shri Samal has over 3 decades of experience in multifarious finance; accounts functions with significant exposure in the areas of Corporate Accounts, Audits, Treasury; Foreign Exchange Management, Investor

Relations, Budgeting and Control. He has played a key role in large scale computerization in Finance, Capital Restructuring, Project Finance, Foreign Debt Management and Risk Management.

Presently he is also spearheading the Corporate Planning and Strategic Management activities of the Company. Under his guidance the Corporate Plan(2017-2032) of the company has been developed envisioning short & long term strategic business initiatives, functional transformation, risk assessment with remedial measures and change in organization structure at macro level.



### Shri V Balasubramanyam

#### Director (Production)



Shri V. Balasubramanyam joined the Company as Director (Production) w.e.f. 01.01.2015.

Born on 01.12.1960, Shri V Balasubramanyam completed his B Tech in chemical engineering and joined NALCO as a Graduate Engineer Trainee (GET) in 1984. During his long service association of three decades with NALCO, Shri Balasubramanyam has contributed significantly from

Technology adoption to absorption in the field of aluminium technology. With his vast professional experience, which nested from project execution to plant operation at both the production complexes of NALCO, Shri Balasubramanyam held very critical and crucial positions in the organization before taking over as Director (Production).

Shri Balasubramanyam is a life member of Indian Institute of Metals (IIM), Management Committee member of Federation Indian Mineral Industries(FIMI) and also member of Energy Panel in Odisha chapter of the Confederation of Indian Industries (CII).



### Shri Basant Kumar Thakur

#### Director (Human Resources)



Shri Basant Kumar Thakur is the Director (HR) of the Company w.e.f. 04.07.2016.

Born on 19.12.1959, Shri Basant Kumar Thakur has a Diploma in Social Works along with a degree in History from Punjab University. He started his career in SAIL in 1981 and since then he served in various units, including



## Board of Directors

Durgapur Steel Plant, Bokaro Steel Plant, Salem Steel Plant, R&D Centre in Ranchi and Corporate Office in New Delhi, prior to joining NALCO as Director (HR). Shri Thakur is a hands on Human Resources professional with comprehensive experience including recruitment, retention, conflict resolution, change management, labour relation and benefit administration. He has four years of experience in Corporate Communications. In SAIL, he had collaborated with senior management to conduct organizational wide strategic planning in order to support and further the organizational goals. He played a vital role rebuilding Human Resources Department by updating Human Resources System, policies and procedure development, coaching, counseling, planning, direction and management of all HR activities in his three decades long career at SAIL. Shri Thakur is a life member of NIPM.

### Shri Sanjib Kumar Roy

*Director (Projects & Technical)*



Shri Sanjib Kumar Roy is the Director (P&T) of the Company w.e.f. 03.02.2017.

Shri Roy completed M. Tech in Chemical Engineering discipline from Calcutta University. He began his career in NALCO as a Graduate Engineer Trainee in 1984. He was posted in the company's Alumina Refinery Complex in Damanjodi since inception of the project, where he held different key positions including two stages of expansion before becoming the General Manager (Refinery). Thereafter, he was posted as General Manager (Smelter) at the company's Smelter Plant in Angul before his elevation as Executive Director (S&P). Shri Roy moved to the headquarters in Bhubaneswar as Executive Director (Production) in April 2015.

Shri Roy brings to this post his vast experience in the company's plant & operations as well as managing projects from conceptualization to commissioning.

### Shri Subhash Chandra

*Part-time Official Director*



Shri Subhash Chandra was inducted to the Board as a Part-time Official Director w.e.f. 20.10.2016.

Born on 14<sup>th</sup> April, 1965, Shri Subhash Chandra is Master in Science and holds Law Degree from Delhi University. He is an Indian Forest Service (IFS) officer of 1988 Batch. At present he is posted as Joint Secretary in the Ministry of Mines,

Govt. of India. In the Ministry, he has been actively associated in the process of policy and legal reforms in the mining sector, auction of mineral blocks, District Mineral Foundation and implementation of new initiatives viz. Mining Surveillance System, Mining Tenement System (under development) and Star Rating of Mines etc.

Prior to that he was working as Dy. Inspector General of Forests in Ministry of Environment, Forest & Climate Change. He has a vast and varied experience in the field of administration, sustainable development, forestry, climate change, policy issues related to management of natural resources and urban greens. Presently he is also holding the post of Managing Director of Bharat Gold Mines Limited and part time official Director in the HCL.

### Dr. N K Singh

*Part-time Official Director*



Dr. N K Singh was inducted to the Board as a Part-time official director w.e.f. 15.03.2017.

Dr. Singh is B.Tech in Mining Engineering from Indian School of Mines, Dhanbad. He belongs to 1987 batch of Indian Forest Service (IFS) from Gujarat Cadre. He is currently working as Joint Secretary in the Ministry of Mines, Government of India, New Delhi.

Dr. Singh has abundant experience of working in Central and State Governments and Public Sector. He has worked at District level for conservation and management of Forests and Environment and development of social sector. He served at the Director level dealing with Environment and Forestry sector in the Planning Commission, Government of India. He also served at the Director level dealing with Integrated Watershed Development Programme (IWDP) in the Dept of Land Resources, Ministry of Rural Development, Govt. of India. He also had a significant stint serving as Managing Director, Gujarat Agro Industries Corporation Ltd. at Ahmedabad.

### Shri Dipankar Mahanta

*Part-time Non-official (Independent) Director*



Shri Dipankar Mahanta was inducted to the Board as a Part-time Non-official (Independent) Director w.e.f. 21.11.2015.

Born on 12<sup>th</sup> December, 1965, Shri Dipankar Mahanta did his MBA from Guwahati University and started with an entrepreneurial venture named M/s Consort Marketing, with an objective of



## Board of Directors

marketing small scale industries products. Subsequently, he joined and served the Guwahati Stock Exchange in various capacities concerning the Indian Capital Market. He was the promoter director of Economic and Industrial Development Collaborative (India) Pvt. Ltd. a company with an object for imparting quality consultancy services and its implementation in the North East Region (NER). He was a consultant in designing and implementing a Handmade Paper unit for L.B.Agro Private Ltd near Guwahati. He was involved as co-consultant in projects like Diagnostic Study of Industrial Training Institutes (ITI's) of the NER for the NEC, Feasibility Study of a Market Complex Exclusively Selling Handloom and Handicraft Products for NEHHDC, Study of the factors affecting the Process of Language Learning for DPEP, Study on 'Bamboo and Bamboo Products in Assam' for National Bamboo Mission, Study on 'Socio-economic Study of the Brick Field in Assam' for Pollution Control Board, Assam. He served Vivekananda Kendra, a voluntary organization in various capacities and later on he was the Associate Director, Research Council of the Vivekananda Kendra Institute of Culture (KIC), a specialized project on Cultural Documentation and Research of India's North East. He also had the opportunities to serve CAPART (NEZ) under the Ministry of Rural Development, Government of India.

He is presently working in the field of Social Entrepreneurship with various social organizations, prominent amongst them is Vivekananda Kendra and Srimanta Foundation for Culture and Society. He is also a resource person and trainer for sessions on 'Knowledge of Self and its Management'.



### Shri S. Sankaraman

*Part-time Non-official (Independent) Director*



Shri S. Sankaraman was inducted to the Board as a Part-time Non-Official (Independent) Director w.e.f. 21.11.2015.

Born on 19th May, 1962, Shri S. Sankaraman is a fellow member of the Institute of Chartered Accountant of India (ICAI). Shri S. Sankaraman is affected by muscular dystrophy and a wheelchair user from the age of 12.

He is presently the Honorary Secretary of Amar Seva Sangam, an Institution for betterment of the handicapped and under privileged. He started his career in 1985 rendering professional services to various corporates before joining the Amar Seva Sangam in 1992. His mission is to empower the disabled citizen by establishing a "Valley for the Disabled" as a Rehabilitation and Development Centre for the region and developing models for self-help initiatives by integrating the disabled individuals with the society for improved living conditions in the villages.

He is a champion for the rights of the disabled persons and believes that disability is not a constraint but only a condition which can be managed

with the right combination of rehabilitation and enablement. He has been instrumental in developing Amar Seva Sangam from scratch to its current position of leadership in the field of disability management with state-of-the-art infrastructure and deliver high quality rehabilitation programs across all age groups and across all disabilities. He is a pioneer in developing innovative models for rehabilitation of persons with disabilities with the involvement of community and has spearheaded a Village Based Rehabilitation Initiative which is acknowledged to be one of the best models in the country. He believes in professionalizing the NGO sector and has computerized all the activities of Amar Seva Sangam with systems and processes. He organized national level seminar on law on handicapped resulting in the enactment of Persons with Disabilities Act by the Indian Parliament in 1996 and many other. He participates in various marathons particularly the Standard Chartered Mumbai Marathon from its inception and has paved way for the inclusion of disabled persons in such sporting events. He has presented papers on the rights of disabled in various forums across the country. He is a trustee and board member of several nonprofits including the Gandhigram Trust (Treasurer), Gandhigram, Dindigul, the Collective action for Basic Rights Foundation (Hon. Vice President), Bangalore, Tamil Nadu Udavikkaram Association for Differently Able, (Founder Member), Chennai, National Institute for Empowerment of Persons with Multiple Disabilities (Member) and from 5th May 2017 he has been appointed as a Member, Tamil Nadu State Commissionerate for the Differently Able, Chennai, to represent persons with loco-motor disabilities. He was conferred with the Ashoka Fellowship for innovation and received several awards at the State, National and International levels in recognition of his services, which include a State Award from the Chief Minister of Tamil Nadu and National Awards from the President of India twice.



### Shri Pravat Keshari Nayak

*Part-time Non-official (Independent) Director*



Shri Pravat Keshari Nayak was inducted to the Board as a Part-time Non-official (Independent) Director w.e.f. 21.11.2015.

Shri Pravat Keshari Nayak, is a Chartered Accountant by profession & senior partner of leading Firm M/s. P.K. Nayak & Co. He has over three decades of professional practice and holds degrees in Law and Diploma in Information System Audit (ICAI). His vast repertoire of financial expertise and experience spans across the public and private sectors and several corporates, banks and other financial institutions. He has been consulted for Adam Smith International, UK on public sector reforms for restructuring of PSUs in Odisha. He has participated in many national seminars and conferences related to finance and audits. He has proactively



## Board of Directors

offered guidance to young entrepreneurs and start-ups during the past few years. He has undertaken audits for government and as independent auditor in large social sector projects. He is a keen animal-lover and takes active interest in social work.



### Prof. Damodar Acharya

#### Part-time Non-official (Independent) Director



Prof. Damodar Acharya was inducted on 21.11.2015 to the Board as a Part-time Non-official (Independent) Director.

Born on 2nd April, 1949, Prof. Damodar Acharya holds degree in Mechanical Engineering from NIT, Rourkela, Masters and PhD degrees from IIT, Kharagpur. He joined the Industrial Engineering faculty in the same institute in 1976. He has left his indelible mark in all the responsibility that he has taken in the institute, be it

as head of the Department, Chairman JEE, DEAN (Sponsored Research and Industrial Consultancy), Executive Director STEP, Chairman of Vinod Gupta School of Management or as the Director. As Vice Chancellor of Biju Patnaik University of Technology, he laid a foundation of a robust Technical University Education system that is being emulated by others. He was the Chairman of All India Council of Technical Education. He played important role in the establishment of IIT Bhubaneswar and was its first Mentor Director. He remained non official Director in the Central Board of RBI for four years and as an Independent Director in RCF for three years.

Prof. Acharya is a Member of Chhatisgarh State Planning Commission. He is also in the Boards of IDCO and State Pollution Control and Chairman of the Advisory Board of SOA University.



### Shri Maheswar Sahu

#### Part-time Non-official (Independent) Director



Shri Maheswar Sahu was inducted to the Board as a Part-time Non-official (Independent) Director w.e.f. 21.11.2015.

Shri Maheswar Sahu has done B.Sc. (Engg.) in Electrical in 1977 from NIT, Rourkela and M.Sc. from University of Birmingham in 1994. He joined Indian Administrative Service (IAS) in 1980. He has served the Government

of India and Govt of Gujarat in various capacities for more than three decades before retiring as Additional chief secretary, Govt of Gujarat in

2014. His career span includes more than 20 years of service in industry and more than 10 year of active involvement in PSU management. He had worked more than 3 years in United Nations Industrial Development Organization. He was instrumental in organization of four Vibrant Gujarat events.

He served as director in many CPSEs. He was also Chairman/ Director in many State PSUs. His area of specialization includes strategic management, public administration, corporate governance etc.



### Ms. Kiran Ghai Sinha

#### Part-time Non-official (Independent) Director



Ms. Kiran Ghai Sinha was inducted to the Board as a Part-time non-official (Independent) director w.e.f. 03.02.2017. She is senate Member, Patna University for three terms in succession. She is also Chairperson, Scouts and Guides Fellowship, Bihar. She is member (Non Govt.), Hindi Salakhar Samiti, Ministry of Civil Aviation, Govt of India.

Ms. Sinha did her M.A. in Hindi from Patna University. She retired as an Associate Professor, Dept. of Hindi, Patna Women's college, Patna University. Ms. Sinha was also member, Bihar Legislative Council (BLC) for consecutive two terms from 2004-10 and again 2010-16. During her tenure as MLC, she was privileged to chair 3 Committees of the house viz. Urban development Committee, Rajbhasha Committee & Child protection Women empowerment Committee. She was member, Local Board (Eastern Zone), Reserve Bank of India (2001-2004) and was also member, Managing Board, Rajendra Agriculture University, Pusa, Bihar for two terms. She was also a jury member for non feature films category & feature film category in the 48th and 50th National Film awards. She was a member of a state delegation to the World Hindi Conference held at United Nations, USA (2007).





## *Executive Directors*



**Shri S.K.Dash**  
ED (BD and R&D)



**Shri R. K. Mishra**  
ED (S&P)



**Shri B.R. Samal**  
Chief Vigilance Officer



**Shri A.S. Ahluwalia**  
ED(Corporate Affairs)



**Shri S. Acharya**  
ED (Production)



**Shri S.D. Sahu**  
ED (Finance)



**Shri A.K. Patra**  
ED (Materials) I/c



**Shri D.K. Mohanty**  
ED(M&R) I/c



**Shri N.K. Mohanty**  
Company Secretary





Commencement of mining operation in New South Block, Panchpatmali bauxite mines

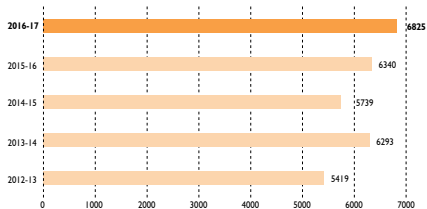


## Bauxite

(in '000 MT)



2012-13	2013-14	2014-15	2015-16	2016-17
5419	6293	5739	6340	6825

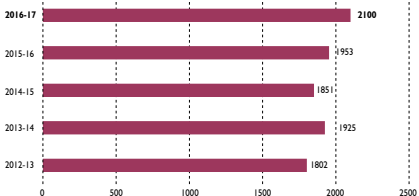


## Alumina Hydrate

(in '000 MT)

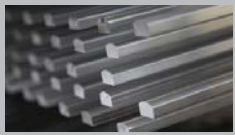


2012-13	2013-14	2014-15	2015-16	2016-17
1802	1925	1851	1953	2100

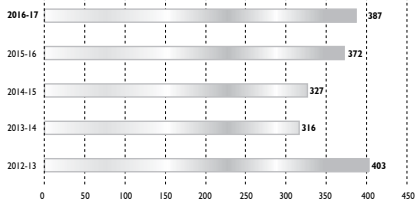


## Aluminium

(in '000 MT)



2012-13	2013-14	2014-15	2015-16	2016-17
403	316	327	372	387

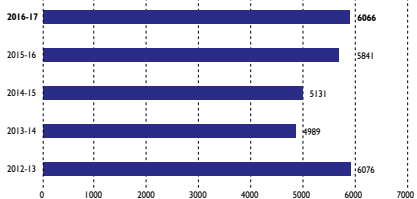


## Power Generation

(in '000 MU)



2012-13	2013-14	2014-15	2015-16	2016-17
6076	4989	5131	5841	6066





## Directors' Report

### Dear Members,

Your Directors have great pleasure in presenting before you the 36<sup>th</sup> Annual Report of your Company together with the audited financial statements and Auditors' Report for the financial year ended 31<sup>st</sup> March, 2017.

You will be happy to know that despite sluggish market conditions, your Company has achieved several milestones during the year under report, as detailed below:

### PERFORMANCE HIGHLIGHTS

#### Physical Performance

Production	Unit	2016-17	2015-16
Bauxite	MT	68,25,000	63,40,142
Alumina Hydrate	MT	21,00,100	19,53,000
Aluminium	MT	3,87,422	3,72,183
Electricity (Net)-CPP	MU	6,066	5,841
Wind Energy	MU	206	156

- Bauxite Mines has achieved highest ever production with Bauxite transportation of 68.25 lakh MT (achieving 100% capacity utilisation) and has surpassed previous best of 63.40 lakh MT achieved in last financial year registering a growth of 7.65%. Bauxite excavation of 68.25 lakh MT during the year is also highest ever since inception surpassing the previous best of 62.89 lakh MT achieved in 2015-16.
- Alumina Refinery has achieved highest ever production with alumina

hydrate production of 21.00 lakh MT (100% of normative capacity) and has surpassed previous best of 19.53 lakh MT achieved in last financial year registering a growth of 7.53%. Steam Generation Plant (SGP) achieved highest ever net power generation of 453 MU surpassing previous best of 438 MU achieved last year.

- Aluminium Smelter achieved cast metal production of 3.87 lakh MT, registering a growth of 4.03 % over previous year.
- CPP achieved 'Net Power Generation' of 6,066 MU, registering a growth of 3.85% over previous year.
- Wind Power: 3 wind power units at Gandikota, Andhra Pradesh, Devikot, Rajasthan & Jaisalmer, Rajasthan have generated 206 MU against 156 MU achieved last year, registering a growth of 32.05%.

#### Sales Performance

##### Chemicals

The Company achieved total chemical sale of 12,94,900 MT in 2016-17 compared to 12,19,926 MT achieved during 2015-16. This includes Calcined Alumina Export of 12,43,103 MT made during 2016-17 as compared to 11,74,224 MT export made during 2015-16.

##### Metal

The total metal sales during 2016-17 was 3,85,518 MT as compared to 3,72,424 MT during 2015-16. Total metal sale consists of domestic sale of 2,84,926 MT and metal export of about 1,00,591 MT. The total metal inventory at the end of financial year 2016-17 was about 3,092 MT.

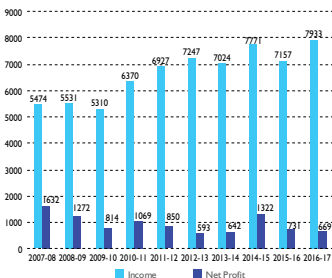
The detailed sales break-up is as follows:

Particulars	Unit	Year Ending 31.03.2017	Year Ending 31.03.2016
<b>Export</b>			
Alumina	MT	12,43,103	11,74,224
Aluminium	MT	1,00,591	94,671
<b>Domestic</b>			
Alumina & Hydrate	MT	51,797	45,702
Aluminium	MT	2,84,926	2,77,753
Total Metal Sale	MT	3,85,518	3,72,424
Total Chemical Sale	MT	12,94,900	12,19,926

Out of total domestic metal sales of 2,84,926 MT, sale of 1,89,416 MT was effected from Smelter plant at Angul and sale of 95,510 MT was effected from eleven stockyards located at Kolkata, Baddi, Jaipur, Faridabad, Bhiwandi, Silvassa, Bangalore, Chennai, Vizag, Vadodara and Delhi.

## Final Performance

(₹ in crore)



## Financial Performance

The details of financial performance are given below:

₹ in crore

Particulars	2016-17	2015-16
Revenue from Operations(Gross)	8,050	7,269
Other Income	408	605
Total Income	8,458	7,874
Cost of materials consumed	1,182	1,104
Power & Fuel	2,213	1,865
Employee benefits expenses	1,537	1,398
Other Expenses	2,041	1,946
Depreciation & amortization expenses	480	426
Total Expenses	7,453	6,739
Profit Before Exceptional items	1,005	1,135
Add/(Less):Exceptional items	(40)	54
Profit before Tax	965	1,189
Tax Expenses	296	402
Profit After Tax	669	787

Note: Previous year's figures has been re-casted in compliance with Ind AS.

## FUTURE OUTLOOK

Metal and mining industry has borne the brunt of China slow down (2013 to 2016). Capacity overhang globally as a result of China slow down has pushed production slow down and low price regime. In case of Aluminium, factors such as continuous supply overhang, increasing export barriers on Chinese Aluminium and increasing pollution control restrictions in China could result in capacity shut down in China some of which has already taken place. This could result in demand supply deficit in global markets.

However, India is likely to benefit from emerging global mega trends as technology adoption, climate and regulatory changes, infrastructure built up, shift in economic power, demographic shifts and urbanization will create domestic demand. Increased use of metal in automobiles, building and construction sector, railways, white goods and solar power etc. would spur the demand in domestic market. It is expected that both Aluminium and Alumina price to remain range bound over next five to seven years, as few producers, especially in USA and EU may resume production.

## Dividend and Appropriations

A Dividend Distribution Policy has been formulated and approved by the Board of Directors and the same is available in the Company's website [www.nalcoindia.com](http://www.nalcoindia.com).

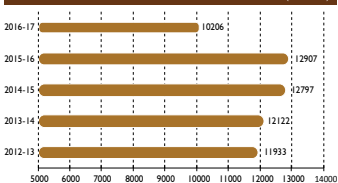


Dividend Pay-out

Your Company has paid dividend of ₹2.80 per share for the financial year 2016-17. The total dividend payout for the financial year 2016-17 works out to ₹541.22 crores as against ₹467.13 crores (₹2.00 per share) for the previous year. Dividend including dividend distribution tax works out to a payout of 97.44% of PAT.

## NETWORTH

(₹ in crore)





It is proposed not to transfer any amount to the General Reserve for the financial year 2016-17.

The dividend for the year 2016-17 was declared in line with the DIPAM guidelines.

#### MoU Performance

Based on financial performance and achievement of other parameters laid down, your Company is likely to be rated "Excellent" as per the Memorandum of Understanding (MoU), signed with the Government of India for the financial year 2016-17.



Signing of MoU with Ministry for 2017-18

#### Raw Material Securitisation

- Utkal D and E Coal blocks have been allotted to NALCO in May, 2016 by Ministry of Coal.
- Terms of Reference for grant of Mining Lease of Pottangi bauxite mine was received from Government of Odisha in July, 2016. NALCO has submitted the acceptance of conditions in August, 2016.
- Bridge Linkage of Coal was sanctioned upto 8.9 lakh MTPA, valid from 2016-17 till 2018-19.
- G-8 grade coal linkage (2 lakh MTA) was booked from M/s. NCL for Refinery for a period of 5 years equivalent to 2.73 Lakh MTA G-12 & G-13 grade coal through linkage auction.
- Mining lease of Panchpatmali Bauxite Mines (Central & North Block) has been extended upto 16.11.2032 from existing 31.03.2020 by Government of Odisha.
- All regulatory clearances for opening of South Block, Panchpatmali bauxite mines have been obtained.

#### PROJECTS UNDER IMPLEMENTATION

##### 5th Stream of Alumina Refinery

Your Company is in the process of setting up 5th Stream in its existing Alumina Refinery which shall add 1.0 MTPY to its existing capacity of 2.275

MTPY, at a Capital expenditure of ₹ 5,540 crores, based on improved Medium Pressure Digestion technology of M/s. RTAIL (Rio Tinto Alcan International Limited).

Your Company has obtained major statutory clearances like Environmental Clearance by MoEF & CC and Consent to Establish (CTE) from Odisha State Pollution Control Board. Thyssenkrupp Industrial Solutions (India) Private Ltd. has been appointed as EPCM consultant for the project.

##### Pottangi Bauxite Mines

Pottangi Bauxite mines (75 Million Tons) has been reserved by Government of India in favour of Your Company. Government of Odisha issued the terms and conditions for issuance of mining lease in favour of NALCO in July, 2016 and Your Company conveyed its acceptance to Government of Odisha in August, 2016. Activities are undertaken for complying with various conditions to obtain the mining lease.

##### Utkal D & E Coal Blocks

Utkal D & E Coal blocks (200 Million Tons) have been allotted by Government of India in favour of Your Company in May, 2016. Your Company is in process of transfer of land & other statutory clearances for Utkal D from prior allottee in its favour. Terms of Reference (TOR) has been issued by MoEF & CC against Environmental Clearance application for Utkal D & E Coal blocks. Mining Plan for Utkal-D & E submitted to MoC for approval.

##### 100 MW Wind Power projects

Your Company has commissioned its Wind Power Plant of capacity 50 MW & 50.4 MW in the state of Rajasthan & Maharashtra respectively at a Capital Expenditure of ₹ 669 crores.

##### Retrofit Conversion of Flat Bottom Tank to HRD-DCW in Streams # 1, 2 & 3 at Alumina Refinery

Your Company is going for retrofit Conversion of Flat Bottom Tank to HRD-DCW in Streams # 1, 2 & 3 of its existing Alumina Refinery, to improve operational efficiency, at an estimated cost of ₹ 355 crores. Order has been placed on M/s. RTAIL as a Technology Licensor. M/s. EIL has been appointed as PMC (Project Management Consultant) for the project.

##### Roof Top Solar Power project

Your Company commissioned 50 KwP Rooftop Solar Power plant at NRTC (NALCO Research and Technology Centre), Bhubaneswar, in November, 2016, with a total project cost of ₹ 37.30 Lakhs.

##### BPTG #5 Project

To reduce dependency on power supply from the grid, BPTG-5 project was envisaged. The project has achieved mechanical completion during the year and expected to be commissioned shortly.

#### BUSINESS DEVELOPMENT

- Your Company has formed a JV Company named 'Angul Aluminium Park Pvt. Ltd. (AAPL)' in association with Odisha Industrial Infrastructure Development Corporation (IDCO) in 2010 to promote



Signing of MoU with NTPC in presence of Hon'ble Union Ministers



downstream and ancillary industries in Odisha. The project has been approved by Dept. of Industrial Policy & Promotion (DIPP), Ministry of Commerce, Government of India under Modified Industrial Infrastructure Upgradation Scheme (MIUS). NALCO and IDCO hold 49% and 51% equity in the JV Company. Your Company's equity contribution to AAPPL till March, 2017 is ₹ 14.70 crores.

- Caustic Soda Project in JV with Gujarat Alkalies and Chemicals Ltd. (GACL): Your Company has formed a JV Company "GNAL" with GACL in Dec, 2015 to set up 2.7 lakh TPA caustic soda plant along with 130 MW captive power plant at Dahaj in Gujarat. Pre-project activities like land acquisition, bidding for Boiler Turbine Generator (BTG) package & Balance of Plant (BOP) package and Technology selection for the caustic soda plant is underway.
- Your Company plans to setup a 20 MW Solar Power Plant in Madhya Pradesh. The project is registered with MPNRED (Madhya Pradesh New & Renewable Energy Dept.) and 55.62 Ha land has been transferred to MPNRED in November, 2016. Application for grid connectivity permission was submitted to MPPKVCL (Madhya Pradesh Paschim Kshetra Vidyt Vitaran Company Ltd.) in November, 2016.
- Company plans to set up another Wind Power Plant of 50 MW capacity at any suitable location in India. Techno-commercial bids for selection of wind power developer were opened in December, 2016 and price bid is in the process of being opened.
- Company has issued NIT for selection of developer for EPC for 50 MW Solar Power Project at any suitable location in India.
- Establishment of Gajamara Power Project: Company has signed an MoU with NTPC to form a JV Company for establishment of 3X800 MW coal based Power Plant at Gajamara, Dhenkanal, Odisha for supplying power to Smelter expansion projects.
- Establishment of Coal Tar distillation plant: Your Company has signed an MoU with Neelachal Ispat Nigam Ltd. (NINL) for setting up a Coal Tar distillation plant in JV mode for production of Coal Tar pitch.
- Establishment of Aluminium Alloy manufacturing plant: Your Company has signed an MoU with Mishra Dhatu Nigam Ltd. (MIDHANI) for establishment of Aluminium Alloy manufacturing plant for meeting the requirement of defence, aerospace, automotive and transport sector under the "Make in India" initiative of Government of India.

## CAPITAL EXPENDITURE (CAPEX)

During the year, the capital expenditure of the Company was ₹ 876.09 crores which includes ₹38.47 crores towards equity contribution to joint Venture Companies.

## RISK MANAGEMENT POLICY

A Risk Management Policy has been formulated and approved by the Board of Directors and the same is available in the Company's website [www.nalcoindia.com](http://www.nalcoindia.com).

## HUMAN RESOURCES MANAGEMENT

### Presidential Directives on SC/ST reservation

Your Company fully complies with all applicable Presidential Directives and other guidelines in matters of reservation for SC/ST/OBC and other categories like the PWD, Ex servicemen etc. Out of total manpower strength of 6,938 as on 31.03.2017, there were 1,129 SCs (16.27%),

1,278 STs (18.42%), 803 OBCs (11.57%), 86 PWDs (1.24%) and 18 ESMs (0.26%) on roll. There were a total of 354 lady employees in the Company as on 31.03.2017.

### Industrial Relations

The positive Industrial Relations climate of the Company throughout the year helped in achieving excellent all-round performance during 2016-17. The Workers' Participation in Management continued to remain a fulcrum of the Industrial Relations practice of the Company. Creation of a culture conducive to sustainable development on all fronts including a focus on improving happiness index through various employee friendly actions remained the highlight of the year. Long pending issues like Special Financial Package for non-executive employees of Mines, medical related issues and the issue of rationalisation of NPS contribution of executives were settled amicably.

### Social Accountability 8000

For creating and maintaining a decent work place, your Company continues to implement SA 8000 Standard successfully.

All the units including Corporate Office have been certified to SA 8000-2008 Standard. Your Company is in the process of transition to SA 8000:2014 (revised) Standard from SA 8000-2008 Standard.

## CORPORATE SOCIAL RESPONSIBILITY (CSR)

Corporate Social Responsibility has been core to the philosophy of the Company. Accordingly, the Company has been taking up different Peripheral Developmental activities. CSR Projects and Programmes since its inception. The CSR Projects/Programmes are identified based on the internal assessment in periphery area directly by your Company and the recommendation of Rehabilitation and Peripheral Development Advisory Committee (RPDAC) and through its CSR arm, Nalco Foundation as well as feedbacks received from different stakeholders.



Free Health Camp

For achieving the Corporate Social Responsibility (CSR) objectives through the implementation of meaningful and sustainable CSR Programmes, your Company has spent ₹ 3,000.80 Lakh in FY 2016-17 towards CSR activities against the mandated spending of ₹ 2,756.55 Lakh as per the CSR policy and Section 135 of the Companies Act, 2013.

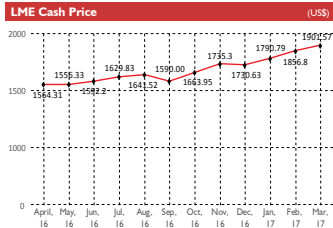
The CSR policy is developed in line with the Companies Act, 2013 which aims to support the disadvantaged/marginalized cross section of the society by providing opportunities to improve the quality of life, demonstrating care for the community through its focus on education, Health care and

Sanitation, measures for environmental sustainability, providing safe drinking water, protection of National heritage, art and culture skill development of local youth to enhance their employment capability, etc.

Some of the unique CSR initiatives taken during the year besides the rural infrastructure development;

- Under protection of environment, your Company has ventured for massive avenue plantation and joined green energy revolution by installing 50 Kw Roof top Solar System installed at Nalco Research and Training Center (NRTC), Bhubaneswar and installed solar street light in eight remote periphery villages of M&R Complex, Damanjodi.
- Under the Government of India call for Swachh Iconic Shrine development, your Company joined hands as a multi stake partner for Development of Iconic Shrine, Puri and transform it to a Swachh Pilgrimage Place.
- Under efforts to promote education, your Company continued to sponsor 755 students from tribal dominated area of Koraput for their education at three (03) residential Schools, extended financial support to 181 poor and meritorious girl students from periphery villages of Angul & Damanjodi to continue their study under the Scheme of "Nalco Aliali Jhia" (Nalco Ki Ladli), in line with Government of India "Beti Bachao & Beti Padhao". Your Company also provided education to 4,129 periphery students at Company aided School "Saraswati Vidya Mandir" both at Angul and Damanjodi.
- Your Company continued to provide better health-care services to inhabitants of 163 periphery villages at Mines & Refinery Complex, Damanjodi, who are mostly tribal people, by operating 4 Mobile Health Units (MHUs). Similarly, 3 Mobile Health Units (MHUs) and one Specialist OPD is operating since November, 2017 in Smelter & Power Complex, Angul, covering 39 periphery villages. In the year 2016-17, around 1,12,809 patients have availed free health-care services at their door-steps in the periphery villages of both the production units.
- Action has been initiated to make eleven (11) villages Open Defecation Free (ODF). Construction of Indian House Hold Toilets (IHHT) have been started in two mines periphery Villages of M&R Complex, Damanjodi.

A detailed report on CSR activities prepared in line with various applicable provisions of the Companies Act, 2013 is attached at **Annexure-1**.



## VISIT OF PARLIAMENTARY COMMITTEES

The following Parliamentary Committees visited the Company during the year 2016-17, as under:

- Visit of the Department related Parliamentary Standing Committee on Industries between 25.06.2016 to 27.06.2016.
- Study visit of the Committee on Subordinate Legislation, Rajya Sabha between 16.07.2016 to 17.07.2016.



SCOPE Excellence Award in Institutional Category from Hon'ble President of India

## MANAGEMENT DISCUSSION & ANALYSIS REPORT

Management Discussion & Analysis report in line with Regulation 34(3) read with Schedule-V of the SEBI (LODR) Regulations, 2015 is placed at **Annexure-II** to this report.

The report also contains:

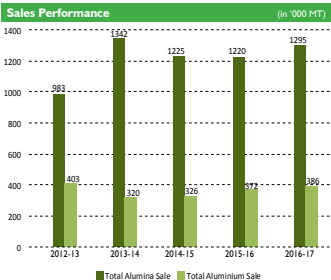
- various initiatives undertaken to further business development.
- the details of risk management initiatives, the details in respect of adequacy of internal financial controls with reference to the financial statements.
- various initiatives taken up in the field of Environment Management at different units of your Company.

## COMPUTERIZATION ACTIVITIES

Your Company continued its efforts in taking advantage of latest developments in the Information Technology by suitably using them in the day-to-day functioning of the Company. In that direction, the Company has taken various steps as detailed below:

SAP ERP has been implemented for Procurement, Inventory Management, Finance & Controlling, Sales & Distribution, Production and Human Resource Management. Your Company has centralized Payroll, Attendance, Perquisites and Leave System on legacy platform. A centralised Hospital Management System is being implemented for the Company hospitals at Angul and Damanjodi.

For close monitoring of various initiatives, an online Capital Expenditure Monitoring System, Departmental Action Plan & Dashboard Monitoring System, Fund Monitoring System, Audit ATR Monitoring System have been implemented. Implementation of Revenue Expenditure Monitoring System is in progress.



To enable transparent and efficient procurement practice, eProcurement of goods is done through SAP SRM7 and services are sourced through Central Public Procurement portal. Further, a Bill Tracking System is being developed to enable vendors to track invoices and know the payment details. To facilitate monitoring of all contracts across the company, an online Contract Labour Management System is being implemented. Further, plans have been initiated to implement analytics as decision support tools.

Digitization of documents and records has been taken up at various Offices and Units. It is planned to introduce the e-Office Document Management System. Knowledge Management will also be a key area of activity.

The network which is the backbone of IT has been revamped with 10 Gbps backbone and 1 Gbps access technology and advanced routing, sequestering and queuing technologies, resulting in efficient and fast throughput across the network. The Wide Area Network connecting plants and offices has been completely migrated to MPLS technology. Critical locations have been provided with dual circuits for fault tolerance.

For computing infrastructure that is nearing completion of life cycle, action is underway for replacing with current and scalable technology, also building a central cloud infrastructure that caters to the server requirements organization wide. Focus is towards use of virtualization in servers to leverage the flexibility of virtualized server provisioning. Disaster recovery coverage is now being extended to all the legacy applications and services.

Your Company has taken steps to reinforce and secure its IT infrastructure and ecosystem by formulating an IT Security Policy and framework to implement an effective Information Security Management System leading to ISO 27001 certification. This will be an assurance to all stake holders regarding the Confidentiality, Integrity and availability of our IT infrastructure, including parties who are transacting digitally with the Company. In security implementation, sensitization has been carried out against threat of Ransomware and preventive and corrective action required thereof.

Current roadmap of activities includes digital office for document storage and retrieval as well as work flow automation, social platforms for in-house as well as for public. The e-governance processes cover in-house services to employees and services like online application systems for recruitments to the general public. Implementation of employee self service modules such as centralized Loans and Reimbursement is in the pipeline. This provides an

online platform for employee participation, quicker service and uniformity in business logics followed across the enterprise.

## IT Audit by C&A

Comptroller & Auditor General of India (C&A) has selected your Company to undertake IT audit of ERP system (SAP) during 2016-17. The audit coverage includes examination of the system development process and the procedures followed at various stages involved therein, review of the security of the IT systems, data integrity along with evaluation of general and application controls of the IT systems to gain assurance about their adequacy and effectiveness, evaluation of the main process involved in different modules of the system and evaluation of performance of the system.

The observations by C&A on access controls, master data maintenance has already been addressed by the management through appropriate control mechanism and guidelines on maintenance of master data.

## TOTAL QUALITY MANAGEMENT

Your Company has taken following major initiatives during the year under report:

### Business Excellence

Business excellence is a concept that believes in "outstanding practices in managing the organization and achieving results", through a systematic and structured actions those lead to increased performance. With active involvement of top Management, your Company implemented the BE programs at Smelter & Alumina Refinery units.

- Smelter Plant:** Business Excellence initiative was launched at Smelter during the year. The BE Star Recognition on Operation Excellence Model was taken up for implementation. A 3-day training and assessment session was conducted on the Operational Excellence Framework during 3rd to 5th January, 2017 with faculty support from CII Institute of Quality, Bengaluru.
- Alumina Refinery:** Business Excellence (BE) initiative that launched earlier at Alumina Refinery was further enhanced with introduction of the comprehensive CII-Exim Bank Business Excellence Model. This model is based on the latest EFQM (European Foundation of Quality Management) Excellence Framework i.e. EFQM 2013. This comprehensive model was launched at Alumina Refinery during August, 2016. Subsequently, top level Councils were formed and training of core team members was taken up. Drafting of position report for CII Exim-Bank Business Excellence assessment, is in progress.

### Integrated Management System

Recertification Audits and Surveillance Audits were conducted at all the units within vizag time and the units i.e. Alumina Refinery, Mines, Smelter, CPP, Vied Port Facilities are operating with valid ISO 9001 : 2008, ISO 14001 : 2004 & OHSAS 18001:2007 Certificates, which are issued with international accreditation from RVA, Netherlands/ UKAS, U.K.

### Energy Management System

Recertification Audit of Alumina Refinery for ISO 50001 System was successfully completed and the unit is recertified to ISO 50001, with the certificate issued with international accreditation from RVA, Netherlands. The other two energy intensive units i.e. Smelter & CPP covered in PAT are also operating with similar valid certificates.

### Perform, Achieve & Target (PAT) Scheme

Mines & Refinery Complex and Smelter & Power Complex were notified as Designated Consumers by M/s. Bureau of Energy Efficiency (BEE), Ministry





of Power, Government of India, in the PAT scheme. During the year, a total of 36,119 Energy Savings Certificates (EScerts) were issued by M/s. BEE to the organisation in recognition of performing better than the assigned targets during the completed PAT Cycle-I. The certificates were issued based on independent audit report submitted by accredited Energy Auditors of M/s. BEE and subsequent verification by the administrative body.

#### Quality Circles and Kaizens

- 53 Quality Circles across the organisation have completed 51 projects during the year. 557 Kaizens were also completed during the year.
- 14 Quality Circles from different units of the Company participated in the National Quality Circle Convention organised by QCFI at Raipur. Out of these, eight QCs achieved recognition as "Par-Excellence" performers, the top-category award in the national level competition.
- The 21st All Odisha Quality Circle Convention was organised by the Company on 20th & 21st April, 2016. This premier State level convention had participation of 25 units i.e. industries, mines operating in Odisha.
- The Inter-Unit Quality Circle Competition was held on 10th November, 2016 at M&R Complex, where ten Quality Circles from different units participated. The winners of Essay, Slogan & Poster competition and the Inter-Unit QC competition were felicitated in the function.

#### 5S implementation

5S system was introduced at Alumina Refinery, Mines, Smelter & CPP in total seven identified areas. Subsequently, the implementation was also assessed by the external assessors from QCFI, Hyderabad. Based on their assessment, six of these areas were rated as "Excellent Implementation". Alumina Refinery has further rolled out this initiative in additional areas in the unit.

#### IMPLEMENTATION OF OFFICIAL LANGUAGE POLICY

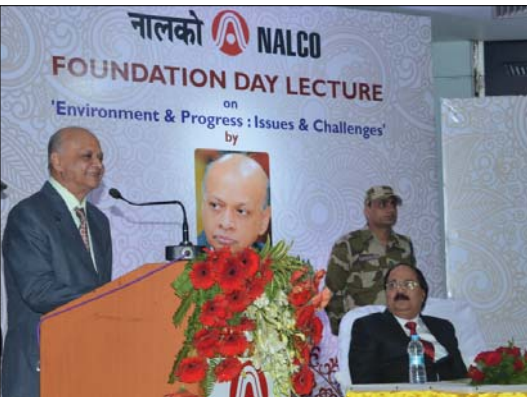
As per the Official Language Act, 1963 and Official Language Rule, 1976, implementation of Hindi has been done in your Company.

- To promote use of Hindi in official work, Hindi Fortnight was observed from 01-09-2016 to 14-09-2016 at Corporate Office and at S & P Complex, Angul. Several Hindi Competitions were organised separately for Hindi speaking and Non-Hindi speaking employees and students. Likewise Hindi Week was observed at M & R Complex, Damanjodi where various competitions were held among employees and students.
- Hindi Teaching Program was implemented at Corporate Office, S&P Complex and M&R Complex and the employees who do not have working knowledge of Hindi, were nominated for Praveen & Pragya courses under Hindi Teaching Scheme of Government of India and after passing the examinations, incentives and cash awards were given as per rules.
- Two Meetings of Town Official Language Implementation Committee (Undertaking) Bhubaneswar and Town Official Language Implementation Committee, Angul each was held during the chairmanship of NALCO. Joint Hindi Workshops organised for employees of all the member offices.
- One Special Hindi Workshop was organised with the faculty assistance of Dr.(Smt.) Vinay Sarangi Rajaram, Member of Hindi Advisory Committee of Ministry of Mines, Government of India and reputed Hindi scholar.
- Website of Company [www.nalcoindia.com](http://www.nalcoindia.com) is made Bilingual and being regularly updated both in Hindi and English.
- During the year, your Company has provided Faculty Assistance on the subject "Unicode and Technical Facilities in Computer and Mobile phones in Hindi & Regional Languages" in the workshops organised by different CPSUs and at Rajbhasha Sammelans.
- Bilingualisation of online applications like Payroll, Leave application, Employees rolls in SAP are being implemented under Digital India Movement.

#### SPORTS

Your Company continues to promote sports and sports person in the country. As the part of promotion of sports, your Company sponsored Hockey India League (HIL). Your Company also sponsored NALCO Cup State Hockey Championship, NALCO Cup State Open Tennis Tournament and NALCO Cup Basket Ball Championship.

As matter of policy to encourage young sports person, your Company felicitates sports person of the State participating and excelling in the field of sports.



NALCO Foundation Day Lecture by Justice Arijit Pasayat, Retired judge of the Supreme Court of India & Chairman, SIT

Mr. Sukhram Majhi and Md. Jafar Iqbal, team member of Indian Blind Cricket Team, who won the World Cup – 2016, were felicitated on 1st April, 2017 in the occasion of Utkal Divas.

Your Company also offered job to four women Hockey players from the State who participated in the Rio Olympics, as a policy to encourage young sports person.

## VIGILANCE

Details of the Vigil Mechanism, established in your Company are given below:-

- Your Company has a well established vigilance organization in the Company headed by a Chief Vigilance Officer (CVO) who is appointed on deputation from Government of India. Other vigilance officers who assist the CVO are selected on deputation basis in consultation with and concurrence of CVO. NALCO has its vigilance set up at three locations, i.e. Corporate Office, Bhubaneswar, S&P Complex, Angul and M&R Complex, Damanjodi.
- The vigilance functions are generally in the nature of preventive, punitive, surveillance and detection.

The Vigilance Department functions in brief are;

- Investigating complaints.
- Surprise Checks in sensitive areas.
- Study of contract/purchase/sales files and Internal Audit Reports which are good source of information for vigilance cases.
- Suggesting system improvements.
- Circulation of CVC Circulars/ guidelines.
- Giving vigilance clearances to various employees for various purposes, viz. NOC for issue of Passport, Promotion, Resignation/ Superannuation/ Voluntary Retirement, Conferment of Award, Foreign Assignment, Deputation and appointment of officers to Board level etc.
- Scrutiny of Property Returns.
- Advising on rotation of officials in sensitive posts.
- Advising CMD on vigilance matters and matters relating to disciplinary procedures.
- Liaisoning with CBI etc.
- Implementation of Integrity Pact.
- Conducting training programmes for awareness among employees and general public as a part of preventive vigilance mechanism.

## Functions of CVO

The functions of CVO are as follows:

- Maintaining a good link with CVC and CBI besides organizing structured review meeting with CBI.
- Furnishing of various return/ report to ministry/CVC/CBI.
- Assisting CVC in selection of Independent External Monitors (IEMs) for I.P (Integrity Pact).
- Assisting management in formulation/updation of anti-corruption policies/ measure.

## Whistle Blower Policy

Your Company believes in the conduct of the affairs of its constituents in a fair and transparent manner by adopting highest standards of professionalism, honesty, integrity and ethical behavior.

The purpose of this policy is to provide a framework to promote responsible and secure whistle blowing to prohibit managerial personnel action. It protects employees wishing to raise a concern about serious irregularities within the Company.

Details of the policy are available in the website of your Company.

## Fraud Reporting

No fraud has been reported by the Auditors under Section 143(12) of the Companies Act, 2013 during the year under report.

The company has a Board approved Fraud prevention Policy and the same is placed in the Company's website [www.nalcoindia.com](http://www.nalcoindia.com).

## RIGHT TO INFORMATION

In order to address the provisions of Right to Information Act (RTI), one Public Information Officer and nine Assistant Public Information Officers responsible for providing information sought by stakeholders has been appointed. The following are the details of the RTI applications and appeals during 2016-17.

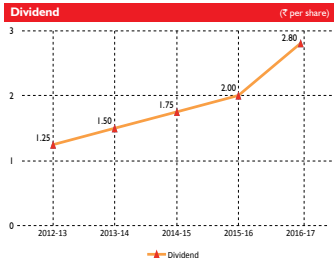
	Under Process as on 01.04.2016	Received during the year (including cases transferred from other Public Authority)	No. of cases transferred to other Public Authorities	Decisions where requests/ appeals rejected	Decisions where requests/ appeals accepted and settled	Under Process as on 31.03.2017
Requests	17	197	01	12	176*	26
First Appeals	Nil	48	Nil	01	44	03

\*Including one case transferred to other Public Authorities.

NALCO has been aligned with the Online RTI portal of Department of Personnel and Training ([www.rtionline.gov.in](http://www.rtionline.gov.in)) with effect from 18.01.2017. The RTI requests are received and replied through this online portal also.

## LISTING IN STOCK EXCHANGES & PAYMENT OF LISTING FEES

The equity shares of your Company continued to be listed on BSE Limited and National Stock Exchange of India Ltd, the premier stock exchanges of the country, having nationwide trading terminals. The listing fees for the year 2016-17 were paid to these stock exchanges on time.



## CAPITAL RESTRUCTURING

### Buy-back of Shares

Based on the decision of the Board of Directors and approval of the shareholders by a special resolution through postal ballot on 14.07.2016,



your Company had bought back 64,43,09,628 number of equity shares of ₹5/- each on 21.09.2016 representing 25% of the total number of equity shares in the paid-up equity share capital of the Company. These shares were extinguished on 26.09.2016. The buy-back offer was at a price of ₹ 44/- per share for an aggregate consideration of ₹ 2,834.96 crores. The paid-up capital of the Company has come down from ₹ 1,288.62 crores to ₹ 966.46 crores. After the buy-back, the shares held by the President of India has come down to 74.58% from 80.93% of the total paid-up capital of the Company.

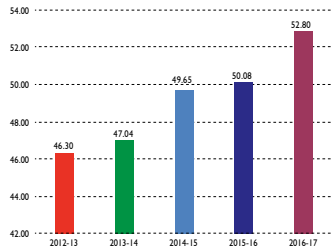
Subsequent to the buy-back of shares, public shareholding in the Company has gone up to 25.42% thereby complying with the requirement of minimum public shareholding, as mandated by Ministry of Finance for all listed CPSEs.

#### Offer for Sale (OFS)

The Government of India sold 14,24,55,941 shares to non-retail investors and 3,56,13,986 shares to retail investors on 19th April, 2017 and 20th April, 2017 respectively through stock exchange mechanism comprising in total, 9.2125% of the paid-up capital of the Company. The Government of India received a consideration of ₹ 1,193.09 crores through this Offer for Sale (OFS). Post OFS, the total shares held by the President of India have come down from 74.58% to 65.36% of the total paid-up capital of ₹ 966.46 crores.

#### Book Value

(in ₹)



#### SERVICES TO SHAREHOLDERS

All matters relating to transfer/transmission of shares, issue of duplicate share certificates, payment of dividend, de-materialization and re-materialization of shares and redressal of investors grievances are carried out by the Company's RTA i.e. M/s. Karvy Computershare Pvt. Ltd., Hyderabad.

#### PAYMENT OF ANNUAL CUSTODY/ISSUER FEES TO DEPOSITORIES

Annual connectivity fees and custody fees/issuer fees for the year 2016-17 were paid to both M/s. National Securities Depository Ltd. and M/s. Central Depository Services (India) Ltd. on time.

#### BUSINESS RESPONSIBILITY REPORT

In line with Regulation 34(2)(f) of SEBI (LODR) Regulations, 2015, a Business Responsibility Report for 2016-17 describing various initiatives taken by the Company on social, environmental and governance perspective, is attached at **Annexure-III** which forms part of this Annual Report.

#### Reports on Sustainable Development

- Business Responsibility Report addressing the requirements of economic, environmental, social & governance aspects based on the National voluntary guidelines, a mandatory requirement of SEBI, is prepared and published in the Annual Report.
- The stand alone Sustainable Development Report based on international guidelines (GRI G4) was also prepared as a voluntary annual disclosure and the same was approved by Management for review at the headquarters of the international body i.e. GRI at Amsterdam. The submitted report with minor modifications were also finally accepted by GRI.

#### CONSERVATION OF ENERGY, TECHNOLOGY ABSORPTION AND FOREIGN EXCHANGE EARNINGS AND OUTGO

##### Research & Development

- 150m<sup>3</sup> per batch Effluent Water Treatment Plant with Emrion Nano Technology of Eesayasa Technology Pvt Ltd, first of its kind in the world was commissioned at Smelter Plant and is in operation. After completion of the Defluoridation Plant based on the nano technology, trial was completed on 30.11.2016 successfully.
- After development of the process, High Speed Extrusion Alloy (HSA) billet, a value added product, the New Product Grade CH-90 added to NALCO's standard product list. Commercialisation of High Speed Extrusion Alloy (HSA) billet was done 25.01.2017, with dispatch of the 1st consignment.
- Under the MOU agreement with CHALIECO/ Guiyang Aluminium Magnesium Design & Research Institute Co. Ltd. (GAMI), China lab scale study for extraction of iron concentrate from red mud, a waste of Alumina Refinery Plant has been completed. Conventional High Gradient Pulse Magnetic Separation and a new technology-Disperse Magnetic Calcinations & Magnetic Separation was attempted for extraction of iron concentrate from Red mud.
- A study was undertaken to establish suitability for iron recovery and 100% utilisation of Red Mud (Plant waste) with M/s. Shenuw Group, China. Lab scale study has been successfully completed and the test report has been received.
- MOU has been signed with Bhabha Atomic Research Centre (BARC), Mumbai on 10th May, 2016 for development of chemical method and technologies for value added processes and product in aluminium industry. Under the agreement two studies have been under taken



Hon'ble Minister with children of KISS sponsored by NALCO



Hon'ble Minister applying finishing touch to live painting during centenary celebration of Champaran Satyagraha at NALCO Head Quarters

by BARC i.e. (i) development of Gallium extraction technology from Bayer's Liqueur of Alumina Refinery process and (ii) Use of red mud in nuclear reactors.

- MOU agreement was signed with 'The Energy and Resources Institute' (TERI) for (i) Generating new knowledge on mining rehabilitation methods and technologies, (ii) Sustainable Rehabilitation of Red mud areas, and (iii) Capacity building of relevant officials.
- Four Patent applications were filed during the year.

The particulars relating to Conservation of Energy, Technology Absorption, Foreign Exchange Earnings and Outgo, as required to be disclosed under the Companies Act, 2013 are given in the **Annexure-IV** to this report.

## DIRECTORS' RESPONSIBILITY STATEMENT

Your Directors' pursuant to the provisions of Section 134(3)(c) and 134(5) of the Companies Act, 2013, hereby confirm that:

- in the preparation of the annual accounts, the applicable accounting standards had been followed along with proper explanation relating to material departures;
- the directors had selected such accounting policies and applied them consistently and made judgments and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the company at the end of the financial year and of the profit and loss of the company for that period;
- the directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of this Act for safeguarding the assets of the company and for preventing and detecting fraud and other irregularities;
- the directors had prepared the annual accounts on a going concern basis;
- the directors, in the case of a listed company, had laid down internal financial controls to be followed by the company and that such internal financial controls are adequate and were operating effectively; and
- the directors had devised proper systems to ensure compliance with the provisions of all applicable laws and that such systems were adequate and operating effectively.

## CORPORATE GOVERNANCE

A report on Corporate Governance in line with Regulation 34 read with Schedule-V of SEBI (LODR) Regulations, 2015 and DPE guidelines is prepared and placed at **Annexure-V** to this report.

The Statutory Auditors of the Company have issued a certificate on Corporate Governance which is appended to the Corporate Governance Report.

## CONTRACTS AND ARRANGEMENTS RELATED PARTIES WITH

The Policy on Related Party Transactions has been approved by the Board and placed in the Company's website which can be accessed at [www.nalcoindia.com](http://www.nalcoindia.com).

Your Directors draw the attention of the members to Note No. 43 of the financial statements which sets out related party disclosures.

No contract has been entered with any related party during the year under report. However, a report in Form AOC-2 is attached at **Annexure-VI** to this report.

## DIRECTORS AND KEY MANAGERIAL PERSONNEL

In accordance of the provisions of the Act, the Board of Directors have appointed the following as Key Managerial Personnel:

- Dr. T.K. Chand, Chairman-cum-Managing Director
- Shri N.R. Mohanty, Director (P&T) till 31.01.2017
- Shri K.C.Samal, Director (Finance)
- Ms. Soma Mondal, Director (Commercial) till 28.02.2017
- Shri V.Balasubramanyam, Director (Production)
- Shri Basant Kumar Thakur, Director (HR) (w.e.f. 04.07.2016)
- Shri S K Roy, Director (P&T) (w.e.f. 03.02.2017)
- Shri K.N.Ravindra, Executive Director – Company Secretary till 31.05.2017
- Shri N K Mohanty, Company Secretary w.e.f. 01.06.2017

## Declaration of Independence by Independent Directors

The Company has received declaration from the Independent Directors of the Company confirming that they meet the criteria of independence as prescribed both under the Companies Act, 2013 and SEBI (LODR) Regulations, 2015.

## Meetings of the Board

During the year, eight Board meetings were held. Details of the meetings are available in the report on Corporate Governance (Annexure-V) placed in this Annual Report.

## Various Sub-committees of the Board

The details of various Sub-committees of the Board including Audit Committee, their composition, terms of reference, details of meetings held are given in the Corporate Governance Report attached to this report.

## EXTRACT OF ANNUAL RETURN

Extract of Annual Return of the Company in the prescribed Form MGT-9 is annexed herewith as **Annexure-VII** to this Report.

**GENERAL**

Your Directors state that no disclosure or reporting is required in respect of the following items as there were no transactions on these items during the year under report:

- Details relating to deposits covered under Chapter V of the Act.
- Issue of equity shares with differential rights as to dividend, voting or otherwise.
- Issue of shares, sweat equity shares and ESOS to employees of the Company.
- Neither CMD nor the Whole-time Directors of the Company receive any commission from the Company.
- No significant or material orders were passed by the Regulators or Courts or Tribunals which impact the going concern status and Company's operations in future.

Your Directors also state that no disclosure or reporting is required in respect of the following areas as they are exempted for Government Companies by Ministry of Corporate Affairs vide notification dated 5th June, 2015, as amended and notification dated 5th July, 2017.

- Company's policy on Director's appointment and remuneration including criteria for determining qualification, attributes, independence, etc. as per Section 134(3)(e) and Section 178(2),(3) & (4).
- Manner in which formal Annual Evaluation of performance of Board, its Committees and individual Directors has been carried out as per Section 134(p) read with Rule 8 (4) of Companies (Accounts) Rules.
- Ratio of remuneration of each Director to the median remuneration of the employee and other prescribed details as per Section 197(12) read with Rule 5 of Companies (Appointment & Remuneration of Managerial Personnel) Rules.

**Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013**

During the year, one case was reported under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, which has been closed as on date.

**Particulars of loans, guarantees and investments**

Particulars of loans, guarantees and investments form part of Notes for 10 and 12 respectively to the financial statements provided in the Annual Report.

**Subsidiaries, Joint Venture Companies and Associated Companies**

The Company does not have any subsidiary. Neither any company has become subsidiary, JV or associate company nor has any company ceased to be subsidiary, JV or associate company during the period under report.

Particulars regarding joint venture companies and associated companies form part of Note 47 of the Consolidated Financial Statements provided in the Annual Report.

Salient features of JV/Associate companies in Form AOC-1 (Note 48) forms integral part of the consolidated financial statement of the Company.

**Awards & Recognitions**

- The Panchpatmali Bauxite Mines of NALCO has been conferred with the 5-Star Rating by the Ministry of Mines in February, 2017 for its efforts and initiatives towards Sustainable Development Framework.
- Highest Export Award for its outstanding export performance in Minerals and Ores sector for the year 2014-15, by Chemical & Allied Products Export Promotion Council (CAPEXIL) in February, 2017.
- Performance Excellence Award, from Indian Institution of Industrial Engineering (IIIE) in February, 2017.



*Hon'ble Ministers dedicating the wind power plants of NALCO to the nation*

- SCOPE Meritorious Award for Corporate Social Responsibility & Responsiveness for the year 2014-15 in FY 2016-17.
- SCOPE Excellence Award in Institutional Category-I for Navratna and Maharatna Companies for the year 2014-15 in FY 2016-17.
- 1st Prize for safety & welfare for contractor's workers and 1st Prize for water management/monsoon preparation for Panchpatmali Bauxite mines, awarded by DGMS in July, 2016.

**Other Notable Awards**

- India Pride Award for the year 2015-16 for CSR, Environment Protection & Conservation, instituted by the Dainik Bhaskar Group in April, 2016.
- 'Outstanding CSR Practices in Community Development Award', during the Odisha CSR Summit 2016, jointly organized by KIIT School of Rural Management and Odisha LIVE at Bhubaneswar in April, 2016.
- 'CSR Excellence Award' in Gold category for the year 2015 by the Institute of Quality and Environment Management Services (IQEMS) in association with Rotary Club - Heritage, Bhubaneswar in May, 2016.
- 'Emerging Global Brand Award' by a leading web channel network Odisha Live, at Bhubaneswar in June, 2016.
- The Times of India Group felicitated NALCO for its CSR initiatives in August, 2016.
- Best Exporter Awards consecutively for the years 2011-12, 2012-13 and 2013-14, under metallurgical products category in September, 2016 at Bhubaneswar.
- Best Mother Plant award in the 30th Annual State Level Convention - 2016 organised by Odisha Assembly of Small & Medium Enterprises (OASME)<sup>1</sup>, on 12<sup>th</sup> August, 2016.

**IMPLEMENTATION OF GOODS AND SERVICES TAX (GST)**

Goods and Services Tax (GST) was implemented by Government of India, effective from 1<sup>st</sup> July, 2017. The Company was well prepared to migrate into GST regime on compliance of statutory provisions, reconfiguration of ERP system and training of personnel to address the business requirement in compliance to GST Law. The Company has also conducted vendor awareness programmes in its plants and offices.

The Company has successfully migrated into GST w.e.f. 1<sup>st</sup> of July, 2017 without any business disruption and is well equipped to address all the future changes those will be notified by the Government from time to time.



## COMMENTS OF COMPTROLLER AND AUDITOR GENERAL OF INDIA ON THE FINANCIAL STATEMENT OF THE COMPANY

You will be pleased to know that your Company has received 'Nil' comments from C&AG on the standalone financial statements of the Company. Further, C&AG has also given 'Nil' comment on the supplementary audit conducted by them on the consolidated financial statements of the Company. Their comments are placed elsewhere in this Annual Report.

## AUDITORS

### Statutory Auditors

M/s. ABP & Associates and M/s. Guha, Nandi & Co. were appointed as joint Statutory Auditors of your Company by the Comptroller and Auditor General of India for the financial year 2016-17.

The report of the Statutory Auditors is enclosed to this report. The observations made in the Auditors' Report are self-explanatory and therefore do not call for any further comments.

### Cost Auditors

As per Cost Audit Orders, Cost Audit is applicable to the Company for the financial year 2016-17. In terms of the provisions of section 148 and all other applicable provisions of the Companies Act, 2013, read with the Companies (Audit and Auditors) Rules, 2014, M/s. Tanmaya S Pradhan & Co. have been appointed as Cost Auditors for the year 2016 17.

Your Company will submit its Cost Audit Report to the Ministry of Corporate Affairs within the stipulated time period.

### Secretarial Auditors

In terms of Section 204 of the Act and Rules made there under, M/s. Saroj Ray & Associates, Practising Company Secretaries have been appointed as Secretarial Auditors of the Company. The report of the Secretarial Auditors together with the explanations of the management on the qualifying remarks of Secretarial Auditors is enclosed as **Annexure-VIII** to this report.

### Internal Auditors

Your Company appointed the following CA firms for carrying out internal audit functions of your Company for the financial year 2016-17:

- M/s. SRB & Associates for Corporate Office, Bhubaneswar
- M/s. SCM & Associates for Smelter & Power Complex, Angul
- M/s. Rao & Kumar for Mines & Refinery Complex, Damanjodi & Port Facilities, Visakhapatnam
- M/s. Bhatia & Bhatia for Northern Regional Office, New Delhi
- M/s. Prabir Ranjan Datta & Co. for Eastern Regional Office, Kolkata
- M/s. Raghavan & Muralidharan for Southern Regional Office, Chennai
- M/s. MKPS & Associates for Western Regional Office, Mumbai

## DIRECTORS

The following changes took place in the Board of Directors of your Company since the last report:

### Appointment

- Shri Subhash Chandra, Joint Secretary, Ministry of Mines was appointed as Part-time Official Director w.e.f. 20.10.2016.

- Shri S K Roy was appointed as Director (P&T) of the Company w.e.f. 03.02.2017.
- Ms. Kiran Ghai Sinha was appointed as Part-time Non-official Director w.e.f. 03.02.2017.
- Dr. Niranjan Kumar Singh, Joint Secretary, Ministry of Mines was appointed as Part-time Official Director w.e.f. 15.03.2017.

### Cessation

- Shri N B Dhal, Joint Secretary, Ministry of Mines ceased to be Part-time Official Director on the Board of your Company w.e.f. 20.10.2016.
- Shri R Sridharan, Special Secretary, Ministry of Mines ceased to be Part-time Official Director on the Board of your Company w.e.f. 03.01.2017.
- Shri N R Mohanty, Director (P&T), superannuated on 31.01.2017.
- Ms. Soma Mondal, Director (Commercial) ceased to be associated with the Company w.e.f. 01.03.2017.

Your directors wish to place on record their appreciation for the valuable services rendered by Shri N B Dhal, Shri R Sridharan, Shri N R Mohanty and Ms. Soma Mondal during their tenure on the Board of your Company.

## ACKNOWLEDGEMENT

Your Directors wholeheartedly place on record their appreciation for the continued and unstinted support of Government of India particularly from Ministry of Mines and other Ministries/Departments of the Government of India, Government of Odisha, Mahanadi Coalfields Ltd., Indian Railways, Comptroller and Auditor General of India, the Principal Director of Commercial Audit & Ex-officio Member, Audit Board, Kolkata, Statutory Auditors, Cost Auditors, Secretarial Auditors, Internal Auditors, Bankers, Solicitors and JV Partners, Business Associates, other Government agencies and CPSEs for the co-operation rendered by them during the year.

Your Directors also acknowledge the support extended by the valued and esteemed domestic and international customers, vendors, solicitors and also look forward for maintaining such mutually supportive business relationship in the coming years too.

Last but not the least, your Directors also place on record their appreciation for the dedication, commitment and sincere services rendered by the employees at various levels and due to the active support and co-operation received from the Trade Unions & Officers' Associations for sustained improvements.

For and on behalf of Board of Directors

**Dr. Tapan Kumar Chand**

Chairman-cum-Managing Director

Place : Bhubaneswar

Date : 19.08.2017



International Yoga Day



## ANNUAL REPORT ON CSR ACTIVITIES

1. A brief outline of the Company's CSR Policy, including overview of projects or programs proposed to be undertaken and a reference to the web-link to the CSR policy and projects or programs.

NALCO, keeping the philosophy of **Sarve Bhavantu Sukhina** continued to be a Socially Responsible Business Enterprise in contributing towards development of its stakeholders, peripheries of its plants and operational areas as well as protection of environment and has kept its aim of achieving sustainable development in the economic, social and environmental dimensions. The implementation of its sound and ethical policies on CSR and environmental protection has led the Company in achieving the said objectives.

The Company has been allocating 2% of its PAT for CSR activities since 2011-12 and from 2014-15 onwards, the Company has been spending 2% of its average net profit during the three immediately preceding financial years under different heads stipulated under Schedule VII of the Companies Act, 2013. These activities are carried out based on the need assessment by its CSR wing as well as in accordance with the need projections made by the local people and their representatives.

The CSR activities of the Company amongst other encompasses the thrust areas like upliftment of economic status & community care, development of infrastructural facilities, health care and health education, promoting education and literacy, promotion of Sports & Games, Arts, Crafts and Culture etc. which helps in minimizing the negative and social environment impact resulting from its economic activities as well as promoting responsible public image of the Company.

The detailed Board approved CSR policy of the Company is placed at Company's website i.e. [www.nalcoindia.com](http://www.nalcoindia.com).

During 2016-17, the Company also continued to focus its CSR activities in the field of infrastructure development, health care services, sanitation, drinking water facility, promotion of education, environmental sustainability, promotion of sports and cultural activities.

Towards providing better health care services to the periphery village people, four Mobile Health Units (MHUs) are operated with support service of Wockhardt Foundation in periphery villages of M&R Complex, Damanjodi. Similarly, three Mobile Health Units (MHUs) are operating in S&P Complex, Angul with service of Lions Club, Angul. Each MHU provides primary health services to the villagers including free medicines, diagnostics and awareness building Information, Education, Communication (IEC) activities. In addition to above, one Specialist OPD center meant for Out Patient treatment of people of periphery villages in Angul Sector has also been operating since November 2016 in S&P Complex. The center is functioning with a qualified doctor, para-medical staff. During the year 2016-17, total 1,12,809 patients have been treated through above facility.

In the context of promoting education and to bring the tribal students to the main stream of education, as an important CSR initiative, 755 students from periphery villages of Damanjodi And Pottangi mines Area have been sponsored for formal education in 3 residential schools viz. (i) Kalinga Institute of Social Science (KISS), Bhubaneswar, (ii) Koraput Development Foundation, Jeypore, (iii) Bikash Vidyalaya, Koraput. Total cost related to study, lodging and boarding, of those students till they complete schooling is borne by the Company.

Moreover, peripheral village students are also extended educational facilities in the two Company aided schools i.e. Saraswati Vidya Mandirs located at Damanjodi and Angul.

In line with Governments objective of "Beti Bachhao & Beti Padhao", the Company has developed a scheme for promoting education of meritorious & poor girls students by way of monetary support under the name of 'Nalco ra Aliali Jhia' which has been well appreciated by the people in the vicinity of its operations. 181 such girl students have been supported under this scheme.

Under Swachh Bharat and Swachh Vidyalaya Abhiyan, the Company has constructed 473 toilets against MHRD target of 354 toilets within the stipulated time.

2. **The Composition of the CSR Committee:**

Sri D Mahanta, Independent Director, Chairman  
 Sri S Sankararaman, Independent Director  
 Sri M Sahu, Independent Director  
 Ms. Kiran Ghai Sinha, Independent Director  
 Sri K.C. Samal, Director (Finance)  
 Sri V. Balasubramanyam, Director (Production)  
 Sri B.K. Thakur, Director (HR)



3. Average net profit of the company for last three financial years:  
137809.67 lakh
4. Prescribed CSR expenditure (two percent of the amount as in item 3 above):  
2756.19 lakh
5. Details of CSR spent during the financial year:
  - (a) Total amount spent for the financial year:  
3000.80 lakh
  - (b) Amount unspent , if any  
Nil
  - (c) Manner in which the amount spent during the financial year is detailed below.

(Rs. In Lakh)

1	2	3	4	5	6	7	8
Sl. No.	CSR Project or activity Identified	Sector in which the Project is covered.	Projects or programmes (1) Local areas or other (2) Specify the State and district where projects or programmes was undertaken	Amount outlay (budget) project or program wise	Amount spent on the projects or programs Sub-head : (1) Direct expenditure on projects or programs (2) Overheads	Cumulative expenditure up to the reporting period	Amount spent: Direct or through implementing agency
01	Health outreach Program-Mobile Medical Units, Diagnostic & awareness building through Information, Education, Communication (IEC) activities and other health related projects.	Point No.(i) of Schedule VII-Promoting preventive health care	Koraput and Angul District of Odisha	425.18	163.59	238.22	Nalco Foundation and Directly by Company
02	Construction of toilets under Swachh Vidyalaya Abhiyan and other purpose	Point No.(i) of Schedule VII-Promoting preventive health care and sanitation	Koraput and Angul District of Odisha and Visakhapatnam district of Andhra Pradesh	611.46	101.57	302.01	Nalco Foundation and Directly by Company
03	Providing safe drinking water to periphery villages of plants and during Rathayatra at Puri	Point No.(i) of Schedule VII- Making available safe drinking water.	Angul, Koraput of Odisha and Puri district of Odisha	164.81	68.37	139.35	Nalco Foundation & directly by Company
04	Promoting education, sponsoring formal education of tribal children in reputed residential schools	Point No.(ii) of Schedule VII-Promoting education including special education	Koraput and Angul district of Odisha	2997.14	2131.83	5438.08	Nalco Foundation and Directly by Company
05	Providing employment enhancing training to Persons With Disabilities (PwDs) students for their livelihood support for skill enhancing training programmes	Point No.(ii) of Schedule VII - Employment enhancing vocational skills specially among children, women, Elderly and differently abled and livelihood enhancement programme.	Koraput, Angul and Khurda district of Odisha	283.20	-	92.00	Directly by Company
06	Ensuring environmental sustainability, ecological balance through plantation, installation of roof top solar power system.	Point No.(iv) of Schedule VII- Ensuring environmental sustainability, ecological balance	Khurda District of Odisha.	389.34	131.70	320.44	Nalco Foundation and Directly by Company
07	Contribution towards protection of national heritage and culture and development of traditional arts and handicrafts.	Point No.(v) of Schedule VII- Protection of national heritage, art & culture	Koraput & Khurda district of Odisha	111.28	55.75	91.03	Directly by the Company





1	2	3	4	5	6	7	8
08	Rural development activities in periphery villages and other areas.	Point No. (x) of Schedule VII- Rural development projects.	Koraput and Angul District of Odisha	1326.28	310.63	513.66	Nalco Foundation and Directly by Company
09	Contribution to the Prime Minister's Relief Fund/Central Govt. fund for socio-economic development/welfare of SC/ST/OBC/Minorities/Women	Point No. (viii) of Schedule VII- Contribution to the Prime Minister's Relief Fund or any other fund set up by Central Govt.	PAN India	400.00		400.00	Nalco Foundation
10	Iconic Shrine Development projects at Puri	Special project under Swachh Iconic place development	Puri, Odisha	467.00	--	--	Nalco Foundation and Directly by Company
11	Administrative Expenditure for carrying various CSR Projects/ Programme			71.01	37.36	37.36	Nalco Foundation
	<b>Total:</b>				<b>3000.80</b>	<b>7572.15</b>	

- The above CSR expenditure forms part of the financial statements for the year 2016-17 duly audited.
- Nalco Foundation is a Trust under Indian Trust Act exclusively set up to take up CSR activities of the Company.
- Some projects have been executed by Nalco foundation with the help of appropriate NGO's operating within the operational areas of the Company.

**6. In case the Company has failed to spend the two percent of the average net profit of the last three financial years or any part thereof, the Company shall provide the reasons for not spending the amount in its Board report.**

The Company has spent more than two percent of the average net profit of the last three financial years.

**7. Future CSR Strategy**

NALCO will focus its CSR projects in line with the flagship programs of Government of India like Swachha Bharat Abhiyan, Beti Bachao Beti Padhao, Digital India, etc. and endeavor to improve socio economic life of people in peripheral area. "Mission skill India" shall be a priority area to improve employability. Thrust will be given for effective implementation of CSR projects during 2017-18.

**8. The implementation and monitoring of CSR Policy, is in compliance with CSR objectives and policy of the Company.**

Sd/-

**(Dr. T.K.Chand)**

Chairman-cum- Managing Director

Sd/-

**(Dipankar Mahanta)**

Independent Director & Chairman  
CSR & Sustainability Development Committee

## MANAGEMENT DISCUSSION &amp; ANALYSIS REPORT

## INDUSTRY STRUCTURE &amp; DEVELOPMENTS

## Alumina

Global production of metallurgical grade alumina grew from 112.31 Million Tonnes in 2015 to 114.97 Million Tonnes in 2016 registering an increase of about 2.4% y-o-y. During the same period, global consumption of alumina grew from 111.41 Million Tonnes to 114.59 Million Tonnes showing an increase of about 2.8% y-o-y. China continued to be the world leader in both production and consumption of metallurgical grade alumina during 2016, accounting for about 52% of total global production and about 54 % of global consumption. Besides China, sharp growth in production (more than 40% y-o-y) was also seen in Middle Eastern countries from 1.30 Million Tonnes in 2015 to 1.84 Million Tonnes in 2016.

During last year, the alumina market in China has become largely a seller's market, with a significant proportion of refining capacity being controlled by a few large producers, capable of controlling the price. Market sentiment during 2016 remained mostly mixed for alumina with the overhang of potential smelter cuts in China. Alumina prices reached a peak of around \$350/t at the end of 2016. After that, alumina prices stabilized and remained generally firm during the 1st quarter of 2017. However, prices declined during the 2nd quarter, largely on account of China remaining inactive in the alumina spot market. Alumina inventory in China continues to remain high and domestic traders continue to adopt a 'wait-and-watch' approach with regard to expected aluminium supply-side reforms in the country. Activity in the Chinese alumina market has actually been quite sluggish in recent months, with only a few sporadic trades taking place. Planned smelter cutbacks in China have increased bearish market sentiment for Chinese alumina prices during the 2nd half of 2017.

Total Calcined Alumina production in India during 2016-17 was about 61 lakh MT and Nalco's share was about 35% i.e. 20.32 lakh MT

## Aluminium

Global Aluminium production grew by about 2.9% y-o-y from 57.10 Million Tonnes in 2015 to 58.73 Million Tonnes in 2016, while global aluminium consumption grew by about 5.3 % y-o-y from 56.63 Million Tonnes in 2015 to 59.65 Million Tonnes in 2016. The aluminium market, thus, recorded a deficit of about 0.92 million Tonnes during 2016. China continued to be the world's largest producer and consumer of Aluminium with a production level of 31.77 Million Tonnes, constituting roughly 54% of global output and consumption level of 29.11 Million Tonnes, constituting nearly 53% of global consumption. Growth of production in China during 2016 was recorded at about 3.3 % y-o-y while that in the rest of the world was 2.4% y-o-y (which was notably up from 1.7% y-o-y in 2015). Similarly, growth in consumption of primary aluminium was 7.3% in China and about 3.2% in the rest of the world during 2016.

The aluminium industry continued its growth trajectory throughout the year 2016, despite the challenging commodity market. The primary aluminium sector boomed in Asia (including China) while the demand scenario remained mostly bullish across China, North America and Europe. The gradual shift in focus towards the downstream sector last year is expected to yield positive results in 2017. Sustainability and cost management also played a significant role in the aluminium industry in 2016.

Global aluminium prices have shown considerable volatility throughout 2016-17, with LME Cash prices fluctuating between a low of USD 1,481/MT in April, 2016 and a high of USD 1,955/MT in March, 2017. Average LME cash settlement price for 2016-17 was USD 1,688 per MT, registering a hike of about 6% y-o-y from the 2015-16 average of USD 1,592 per MT. Two fundamental variables which played an important part in the sharp rise in aluminium prices over recent months are the fall in global reported inventory levels and smelting costs inflation, predominantly in China.

Estimated stock of aluminium (as reported by Reuter's) at the end of FY 2016-17 was approximately 18.86 million MT, registering a sharp decline of more than 30% from a level of 27.92 million MT at the end of the last FY.

## OPPORTUNITIES AND THREATS

## Opportunities

Aluminium has often been described as the "metal of the future", considering its wide range of applications across various sectors. In fact, very few metals can compare with aluminium when it comes to sheer variety of uses. It is extremely popular on account of its strength, durability, corrosion resistance, excellent electrical conductivity and a host of other properties. Pertinently, aluminium is also theoretically 100% recyclable with no loss of natural properties.

The electrical sector has long been the mainstay of the aluminium industry in India. However, substantial growth prospects are now being explored in a variety of new areas, as well. In the transportation sector, while the auto industry (including in India) still relies heavily on



steel, the drive to increase fuel efficiency and reduce CO<sub>2</sub> emissions is leading to a much wider use of aluminum globally. Experts predict that the average aluminum content in a car will increase by 60% by 2025, which presents a unique opportunity to aluminum makers across the world. Similarly, high-speed rail systems like the Shinkansen in Japan and the Maglev in Shanghai also use aluminum extensively. The metal allows designers to drastically reduce the weight of the trains, cutting down on friction resistance. The Indian Government is also formulating a new Metro rail policy which is expected to lead to substantial investments into new Metro rail lines and associated facilities, which will also support aluminium demand. Besides this, opportunities also exist with respect to production of specific aluminium alloys meant for aerospace and defence applications.

Opportunities also exist in the downstream and value-added product segment e.g. sheets, extrusions and castings. There is considerable potential also for increased usage of aluminium in the housing and construction sectors, as aluminium structures are virtually maintenance-free due to aluminium's resistance to corrosion and also in view of the emphasis, today, on sustainable growth and limiting deforestation / environmental degradation.

#### Threats

The Indian aluminium industry today faces several challenges which threaten its existence. Falling global prices of aluminium may erode margins and reduce sales realization for domestic primary manufacturers adversely impacting the bottom-line of the companies. The situation is particularly exacerbated considering the large-scale availability of low-cost smelters in nearby regions such as Western Asia (on account of cheaper gas based power plants) or China (on account of cheaper coal/ hydel power availability as well as power subsidies and other financial incentives given to Smelters by Regional Governments).

Additionally, the domestic aluminium industry has been under considerable stress on account of the high incidence of imports (estimated to constitute about 50% of total domestic consumption) of unwrought aluminium and scrap into the country. Large scale availability of cheaper imported material poses a threat of serious injury to the domestic industry.

Other threat perceptions for the Indian aluminium industry include slowdown in the global economy, threats of substitution of aluminium by other materials (including plastics, composite wood, steel, glass, copper etc.) and intense competition from secondary producers in the domestic market, all of which can adversely impact profitability and growth prospects of the primary players.

#### OUTLOOK FOR FUTURE

##### International Outlook

The global production outlook for 2017 remains generally bullish. Strong growth is expected in China with production reaching 36.6Mt (registering a growth rate of about 15% y-o-y over 2016), after adjustment for closures. Growth is likely to be driven by project ramp-ups in Inner Mongolia and Xinjiang. Capacity restarts are also expected in provinces such as Sichuan. Smelters in the aforementioned regions will account for 80% of the rise in output in 2017, suggesting that any change in circumstances for these smelters may affect the overall production outlook. The influx of new capacity is likely to drive aluminium prices down, and as a result there will be a need for closures in 2017 for the Chinese market to balance out.

Limited growth in production is expected in regions outside China in 2017. Annual production in the rest of the world is forecast to reach 27.59 MT in 2017, a mere 2.2% y-o-y increase compared to 26.97 MT level in 2016.

On the demand front, the outlook in China remains generally upbeat. Economic activity, in China, is expected to remain firm in 2017 with GDP and IP forecast to rise by 6.5% and 5.8%, respectively. Steady growth is expected based upon resolute demand from the residential construction as well as transport sectors. Increase in downstream capacity in China is cultivating competitive market conditions, and driving down conversion fees. Though analysts believe that demand in both construction and automotive sectors may ultimately slow down towards the end of 2017, government investment in infrastructure is expected to boost demand. Besides, higher intensity of aluminium usage in China is likely to support growth. In the rest of the world, optimism has picked up for rolled products with key-end use sectors beginning to show firmer activity. Demand for extruded products has already picked up in 2017 across end use sectors, driven in particular by demand from the automotive market.

Weakening Chinese fundamentals may weigh down on prices during 2017. After averaging \$1,854/t in Q1 2017 and \$1,917/t in Q2 2017, LME 3-month price is forecast by leading commodities analyst CRU, to average about \$1,910/t during Q3 2017. Reports have indicated that 30% of aluminium smelting capacity and 50% of alumina refining capacity may be cut in Henan, Shandong and Shanxi provinces of China if environmental measures are introduced. If China were to curtail capacity, it is expected to be supportive of aluminium prices.

Market optimism that China will introduce measures to control production growth has, in fact, lifted investor optimism for aluminium. In turn, this has boosted aluminium price sentiment. Expectations of winter shutdowns and Chinese supply reform are among the main reasons that prices are likely to remain firm. Additionally, the US administration in April, 2017 has announced that it would begin investigating whether aluminium imports pose a threat to self-sufficiency in the US. This action may lead to higher import duties being levied on aluminium. As a result of the expected policy developments in China and the US, prices may remain high through 2017.



## Domestic Outlook

The Indian economy grew at an estimated 7.1% during 2016-17, marginally lower than the previous fiscal year. At the same time, the industrial sector grew at a moderate 5.2% as compared to 7.4% during the previous fiscal. As per latest FICCI Survey held in March-April, 2017 amongst economists belonging to the industry, banking and financial services sector, India's GDP growth is expected to strengthen to about 7.4% in 2017-18, as a consequence of policy reforms and an expected pick-up in investment. The overall GDP growth is likely to be supported by an improvement in industry and services sector growth.

Total domestic production of aluminium metal during FY 2016-17 grew by 17.5% y-o-y from 2.44 Million Tonnes in 2015-16 to 2.86 Million Tonnes in 2015-16. At the same time, domestic consumption of primary metal also showed a marginal increase of 1.6% y-o-y from about 3.24 Million Tonnes in 2015-16 to estimated 3.29 Million Tonnes in 2016-17. Aluminium exports by Indian primary producers also registered an impressive 48% growth y-o-y from 0.88 Million Tonnes in 2015-16 to 1.31 Million Tonnes in 2016-17.

Transmission and distribution sectors in the country did not witness any significant improvement in demand during last year. However, the situation is expected to undergo a positive change in 2017-18. The announcement in the Union Budget of India, 2017, where the government has indicated higher spending on infrastructure is positive for aluminium products demand in the country. The government's vision of electrifying all of rural India by May, 2018 will support electrical demand in India. As a consequence, domestic aluminium manufacturers are likely to ramp up output, in order to cater to the growing domestic demand, while achieving higher capacity utilization.

## RISKS & CONCERNS

Volatility in LME prices, fluctuations in US Dollar exchange rates, increase in global production of Aluminium metal, slowdown in the global economy and growing competition from secondary producers in the domestic market for value added products, increase in input prices, forthcoming pay revision, increase in Electricity duty etc. continue to remain causes of concern.

## RISK MANAGEMENT

The Company has a Risk Management Policy, which inter-alia incorporates guidelines issued by Government of India from time to time. Risk Management is under taken as a part of normal business practice and that as separate tasks at set time.

The Company has a Risk Management Committee at Board level. The Committee reviews the exceptional Risk Reports and advice remedial measures from time to time. The risk mitigation measures are periodically reviewed to ensure that executive management controls risk through means of a properly defined frame work. Periodical review is made to identify new risk areas along with mitigation plans. For the identified risks, the nominated risk officers maintain risk registers in prescribed format which are also overviewed by Internal Auditors of the Company as well as at Senior Management level. Deviations, if any, are reported to the Risk Management Committee and Board. So far there is no Risk prevailing in the Company during year which may likely threaten the functioning of business of the Company.

## INTERNAL CONTROL SYSTEMS AND THEIR ADEQUACY

The Company has a well established and adequate system of internal control commensurate with the size and nature of its business. The Company's Internal Control System has been designed to provide for:

- Compliance with applicable status, policies & procedures, rules & regulations and delegated authority.
- Adherence to applicable Accounting Standards and Policies.
- Proper recording of transactions & timely reporting.
- Effective use of resources and efficient operations.
- Safeguarding of assets.

As per Section 134 (5)(e) of the Companies Act, 2013, the Directors have an overall responsibility for ensuring that the Company has implemented system and framework of Internal Financial Controls, which are adequate and operating effectively.

The Company has well designed policies, procedures & guidelines in place to ensure control of its different areas of business operations and reporting. This includes delegation of powers, various manuals, rules, policies and guidelines formulated by the Company from time to time. The approved policies, procedures & guidelines are effectively and responsibly being used while executing business of the Company. The Company has developed & implemented an Internal Financial Control framework duly approved by the Audit Committee which includes internally entity level policies/processes and operating level standard operating procedures primarily aiming at bringing awareness amongst the officials dealing with affairs of the Company so as to ensure adherence of the policies, procedures, guidelines designed and put in place for effective control. This provides the Directors with reasonable assurance regarding the adequacy and operating effectiveness of controls with regards to reporting, operational and compliance risks.

Financial Statements are prepared in compliance with applicable Accounting Standards & on the basis of the Significant Accounting Policies as adopted by the Company duly approved by the Audit Committee and the Board. These Policies apply uniformly across the Company.



The Accounting Policies supported by standard operating procedures are reviewed and updated from time to time. The Company uses ERP Systems as a business enabler and also to maintain its Books of Account. The Standard Operating Procedures and transactional controls built into the ERP Systems ensure proper recording, approval mechanisms and maintenance of records. The systems, standard operating procedures and controls are reviewed by management from time to time.

The Company has entrusted its internal audit function to external Chartered Accountants' Firms to carry out audits at all locations and functional areas. The internal auditors have access to all the information in the organization which has been largely facilitated by ERP implementation across the organizations. The observations of internal auditors arising out of audits are periodically reviewed at appropriate level and compliances ensured. Material observations of internal auditors are submitted to Audit Committee for its review, analysis and advice to further strengthen internal control system. Action Taken Report thereon is submitted to Audit Committee periodically.

During the year, controls were tested and no reportable material weakness in design and effectiveness was observed as certified by Internal Auditors and as opined by Statutory Auditors in their report. The Company recognizes that the internal control framework needs to be regularly reviewed & revised to ensure that such systems are reinforced on an ongoing basis in consonance with changing business environment.

## DISCUSSION ON FINANCIAL PERFORMANCE WITH RESPECT TO OPERATIONAL PERFORMANCE

### A. Financial Operation

#### I. Revenue from Operation

Rs. in Crore

Particulars	FY 2016-17	FY 2015-16	Change%
Export Turnover	3624.99	3,246.87	12
Domestic Turnover	4,308.00	3,909.68	10
Gross Turnover	7,932.99	7,156.55	11
Other Operating Income	117.03	112.68	4
<b>Total</b>	<b>8,050.02</b>	<b>7,269.23</b>	<b>11</b>

Sales turnover during the year has increased over the preceding year with the combined effect of increase in average sales realization and volume of sales. During the financial year 2016-17, the Company has achieved Alumina sales of 12.95 Lakh MT against 12.20 Lakh MT achieved during last year. Sales volume of Aluminium metal during the financial year 2016-17 was 3.86 Lakh MT against 3.72 Lakh MT during last year. Average Sales realization of Aluminium Metal and Alumina has increased by about 7% and 5% respectively. Similarly the sales volume of Aluminium metal and Alumina has increased by about 4% and 6% respectively.

Other Operating Income is more due incentives on renewable energy due to higher generation of Wind Power. However export incentives have come down in spite of higher export sale due to decrease in rate of duty drawback of Aluminium from 1.9% to 1% and Alumina from 1.4% to 1.1% w.e.f. 15.11.2016.

#### II. Other Income (Non-operating)

Rs. in Crore

Particulars	FY 2016-17	FY 2015-16	Change%
Other Income	408.27	605.13	-33

Other non-operating Income is less compared to previous year mainly on account of lower income from investment of surplus fund after reduction of investible surplus by about Rs.2,835 crore on account of buyback of shares in September, 2016. Apart from the above, decrease in yield also resulted in lower other income

#### III. Expenditure

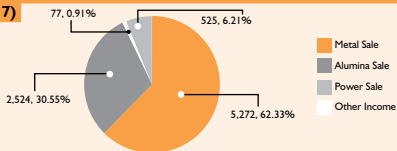
Rs. in Crore

Particulars	FY 2016-17	FY 2015-16	Change %
Raw Materials Consumed	1,181.79	1,104.41	7
Power & Fuel	2,212.53	1,864.61	19
Employee Benefit Expenses	1,537.44	1,398.33	10
Stock Accretion /Depletion	(96.59)	(8.99)	--
Other Expenses	1,628.22	1,499.14	9
Finance Cost	2.69	3.27	-18
Depreciation	480.36	426.12	13
Excise Duty	506.98	452.27	12
<b>TOTAL</b>	<b>7,453.42</b>	<b>6,739.16</b>	<b>11</b>



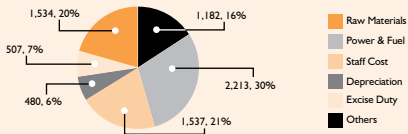
- Increase in Raw material expenses compared to previous year is primarily attributable to higher volume of production of both Alumina & Aluminium. Besides due to higher specific consumption of Caustic Soda due to use of Bauxite with higher silica content as per recent IBM guidelines, the expenditure has also increased. However, decrease in price of CP Coke has led to partial reduction in expenditure.
- Increase in Power & Fuel cost is primarily attributable due to (i) higher effective price of Coal at CPP and Refinery on account of increase in Clean Environment Cess and Change in coal mix, (ii) Increase in the rate of electricity duty from 20 paise to 30 paise per unit which is effective from mid of the FY 2015-16 (iii) increase in fuel oil price and (iv) increase in volume of production of both Alumina & Aluminium.
- Increase in Employee benefit expenses is mainly due to liability provision considered for Pay revision of employees due from 1st January, 2017 and allocation of NPS towards superannuation benefits.
- Increase in Other Expenses as compared to previous year is mainly on account of increase in RPO obligation due to enhancement of solar RPO obligation, increase in royalty due to higher volume, increase in provision towards disputed statutory dues etc.
- Increase in Depreciation was due to depreciation on Pot relining capitalized for uniform allocation of pot relining expenses over its useful life (Upto last year, such relining cost was charged to statement of profit & loss). Apart from this, commissioning of 3rd Wind Power Plant (50 MW) during September, 2016 has led to increase in depreciation.

## Income Breakup (2016-17)



**Note:** Other income includes operating income i.e. export incentive and incentive on generation of renewable energy and non operating income i.e. income from investment in FD, Mutual Fund and other miscellaneous income.

## Expenditure Breakup (2016-17)



**Note:** Others include repair & maintenance, consumption of stores and spares, Other manufacturing expenses, General administrative expenses, Selling & distribution expenses. Apart from that finance cost amounting to Rs. 2.69 crore and stock accretion amounting to Rs.96.59 crores is also adjusted in the graphical presentation under Others.

## IV. Exceptional Items

Rs. in Crore

Particulars	FY 2016-17	FY 2015-16
Other Expenses	40.15	--
Income	--	53.45

Exceptional item recognized during the year includes Rs.37.90 crore towards liability for entry tax on imported goods during the year based on the demand for Entry Tax on imports made by State Govt. upto 31.03.2017. The demand for entry tax pertaining to earlier years has been recognized in the current year based on court judgment, hence considered as exceptional item.

Figures of previous year relates to final settlement of Risk & Cost claim due to non supply of materials received during the previous year.


**V. Profit After Tax and Earnings Per Share**
**Rs. in Crore**

Particulars	FY 2016-17	FY 2015-16
Profit before Tax	964.72	1,188.65
Tax Expenses	296.19	401.54
Profit after Tax	668.53	787.11
Earnings per Share(of Rs.5/- each)	2.98	3.05

The earnings per share for the year 2016-17 is based on weighted average of share holding and is less compared to previous year due to decrease in profit after tax.

**VI. Dividend Particulars**

Particulars	FY 2016-17	FY 2015-16
Interim Dividend (%)	56	25
Final Dividend (%)	--	15
Total (%)	56	40

To promote investors interest, a higher dividend compared to last year has been paid for the year 2016-17.

**B. Financial Positions**

Particulars	FY-2016-17	FY-2015-16*	Change %
<b>Assets</b>			
Fixed Assets	7,710.43	7,283.38	6%
Investments	1,260.68	1,010.36	25%
Cash & Bank Balances	2,287.23	5,103.15	-55%
Inventories	1,155.93	1,055.01	10%
Other Assets	2,087.38	2,258.29	-8%
<b>Total</b>	<b>14,501.65</b>	<b>16,710.19</b>	<b>-13%</b>
<b>Equity &amp; Liabilities</b>			
Equity Share Capital	966.46	1,288.62	-25%
Reserves & Surplus	9,239.33	11,906.13	-22%
Deferred Tax Liabilities	1,245.58	1,164.11	7%
Trade Payables	864.07	655.86	32%
Other Liabilities & Provisions	2135.12	1695.47	26%
Borrowings	51.09	-	-
<b>Total</b>	<b>14,501.65</b>	<b>16,710.19</b>	<b>-13%</b>

Note: \*Figures for 2015-16 is re-casted in compliance to Ind AS.

- Fixed Assets has gone up primarily due to commissioning of wind power plants at Rajasthan (Devikot) & Maharashtra (Sangli) and payment for coal blocks.
- Fixed assets for FY 2016-17 include Capital Work in Progress (CWIP) amounting to Rs.514 crore.
- Investments has increased due to Mutual fund valuation on the reporting date based on NAV & equity contribution to joint venture Companies.
- Decrease in Cash and bank balances is mainly due to cash outflow on account of buyback of shares during September, 2016.
- Inventories have gone up primarily on account of accretion of stock of finished goods particularly Alumina Hydrate on the reporting date.
- Other assets has decreased primarily due to trade receivable, as less amount remained unrealized both in Alumina & Aluminium compared to previous reporting day.
- Equity share capital and reserve & surplus has decreased primarily on account of buyback of shares.
- Trade payables has gone up due to accrued wages and salaries on account of liability provided for 2% diversion to NPS and employee pay revision liability for the period 1.1.2017 to 31.3.2017.



- Other liabilities & provisions has gone up due to increased liabilities on capex projects, increased liability towards interest on disputed dues, Renewable Purchase Obligation, advance received from customers and increased provisions towards long term employee benefit based on actuarial valuation and legal and constructive obligation as mandated by Ind AS.
- After introduction of Ind AS, the company has considered bills raised on customers which have been discounted with the bank under cash credit facility of the company but not confirmed by the accepting bank as on the reporting date as Borrowings.

## C. Key Financial Ratios:

Sl. No	Particulars	2016-17	2015-16
1	PAT/ Net worth	6.55 %	5.97%
2	EBIT/Net sales	13.55%	16.98%
3	EBIT/ Capital Employed	10.74%	9.25%

## D. Segment wise information.

Sl. No.	Particulars	Chemicals (Alumina)		Aluminium		Unallocable		Total
		Rs. in Crore	Share (%)	Rs. in Crore	Share (%)	Rs. in Crore	Share	Rs. in Crore
1	Gross Sales	2,584	32.58	5,277	66.52	72	0.91	7,933
2	PBIT (Before exceptional items)	977	96.96	(225)	-22.31	255	25.35	1,008
3	Capital Employed #	2,863	25.00	3,262	28.49	5,326	46.51	11,451
4	ROCE (%) (2/3)		34.12		-6.89		4.80	8.80
5	PBIT Margin (%) (2/1)		37.80		-4.26			12.70

# Capital employed under "Unallocable Common" Includes Cash balance and Assets of Wind Power Plant and expansion units.

## Aluminium Segment has negative EBIT on account of increase in transfer price of Alumina accompanied by increase in the price of Fuel Oil, increase in the rate of electricity duty and enhanced Renewable Purchase Obligation (RPO).

### Cost reduction measures and efforts to improve specific consumption of critical raw material.

Enhancement of operational efficiency is one of the priority areas and through this reduction in consumption of energy, raw materials etc. has resulted in reduction of cost. Many such initiatives have been taken out of which benefits are realised from following projects during the FY 2016-17.

- Smelter: Graphitization of cathode of 395 pots have resulted in reduction in D.C. energy consumption in graphitised pots @ 45 KWH/MT.
- Alumina Refinery: Replacement of Coal Mill liners in Boilers 1 & 2 of SPP completed in July, 2016 & December, 2016 respectively have resulted in reduction in specific coal consumption.
- Alumina Refinery: Installation of 3 modified rake drive assemblies in mud washing circuit for improvising mud-management has reduced Caustic soda loss by 0.5 KG/Ton.
- Alumina Refinery: Installation of Magnetic resonator in HFO & LDO circuit of Boilers at SPP have contributed towards reduction in fuel oil consumption to the tune of 0.1 ltr / ton of hydrate.
- Alumina Refinery: Substitution of Wheat Bran with Synthetic Flocculent in Washers (str 1, 2 & 3) has increased the settling efficiency & contributed towards cost benefit depending on price of flocculant.
- Alumina Refinery: Replacement of Fans (05 nos. in Phase-I) with Blowers of alumina silo and alumina handling air slide system has contributed towards appreciable energy saving.
- Alumina Refinery: Connecting Deaerator steam charging header to two different sources in boiler 1, 2 & 3 of SPP have contributed towards better deaeration and increase of feed water inlet temperature and associated saving due to better efficiency.

### Disclosure of Accounting Treatment

The financial statements of the Company have been prepared in accordance with Ind AS and relevant provisions of the Companies Act, 2013.





The financial statements have been prepared on historical basis, except certain financial instruments that are measured at fair values at the end of each reporting period, as explained in the accounting policies below.

All assets and liabilities have been classified as current or non-current as per Company's operating cycle and other criteria set out in schedule-III of the Companies Act, 2013. Based on the nature of business, the Company has ascertained its operating cycle as 12 months for the purpose of current or non-current classification of assets & liabilities.

#### MATERIAL DEVELOPMENTS IN HUMAN RESOURCES/INDUSTRIAL RELATIONS FRONT INCLUDING NUMBER OF PEOPLE EMPLOYED

##### Human Resources

Your Company has taken several steps for strengthening various HR processes like the Performance Appraisal, R&P Rules for executives, Discipline etc. by either making new provisions or by amending existing ones. Action was also initiated to put in place a Human Resource Plan for the Company to meet the talent needs of the company keeping pace with the strategic growth plans. The plan envisages optimisation of human resources by creating a balance between critical talent needs vs. the rising labour costs. The manpower strength of the Company as on 31.03.2017 vis-a-vis the position as on 31.03.2016 was as under:

Sl No	Position*	As on 31.03.2017	As on 31.03.2016
A	Executives	1,807	1,804
B	Supervisory	754	816
C	Skilled/Highly Skilled	3,736	3,802
D	Unskilled/Semi Skilled	641	678
	<b>Total</b>	<b>6,938</b>	<b>7,100</b>

\*Includes GETs/MTs/Non-executive trainees

In order to improve compliance on the contract labour front, your Company has embarked upon development of an on-line Contract Labour Management System in phases. Currently, processes like contract labour personal data, gate pass control, safety and training, attendance recording and wage payment etc. has been launched w.e.f. 01.07.2017. The system is planned to be further strengthened by adding features like skill set data, on-line compliance mechanisms etc. after stabilisation of the initial phase through training and real-time participation of various stake holders like the Contractors, Engineer-in-Charges and functional disciplines like Tender & Contracts, HR, Administration, Safety etc. Similarly, a robust Human Resource Information System (HRIS) in the SAP based ERP platform has been developed. Action is under way to synchronise the HRIS with the Payroll system to remove redundancy.

##### Training

With an objective to enhance the functional and behavioural competency of its employees and its stake holders to align it with the business objective of the organization for increase the production, productivity and also its commitment for the development of the society, there has been a continuous and concerted effort by the Company to impart training to regular employees, contract workers, apprentices, student internship training as well as to local population with an objective of skill development.

As regards to regular employees, the Company has achieved 19626.5 training mandays for the year 2016-17 compared to 12922.5 training mandays for the year 2015-16. There were 789 apprentice trainees were engaged during the year 2016-17 compared to 749 apprentices engaged during the year 2015-16. As a part of corporate responsibility and industry academic interface, 2049 students from different technical and management institutes across the country had undergone summer internship programme in various functional disciplines in the units and offices. In-house skill development programmes for security personnel, contract labours, traffic volunteers and trainees were also organized with 4421.5 mandays across the company.

In line with skill India campaign of Govt. of India, MOU has been signed with National Skill Development Council (NSDC)/National Skill Development Fund (NSDF) to provide Skill Development Trainings to 1620 candidates in next 02 years period with relevant Qualification Packs (QP) including RPL (Recognition of Prior Learning) certification training to 420 workmen engaged under various contractors at bauxite mines. Accordingly, skill development training classes for enhancement of employability and income generation in various skills like retail, health care, beauty & wellness and hospitality in the three districts i.e. Koraput, Angul & Khurda have since started from 12th December, 2016. As on 31st March, 2017, 180 candidates have been trained and 60 candidates are undergoing training. The RPL certification programme has started with first batch of 21 workmen on 27.02.2017.

A Center of Excellence in skill development has also been inaugurated on 08.01.2017 at NRTC, Gopathatna, Bhubaneswar by Secretary, Ministry of Mines, Govt. of India which will be set up with an estimated cost of Rs. 20 Crores and will be funded out of Company's CSR fund.



## CORPORATE PLAN

NALCO has embarked upon a new long term corporate plan to retain its position as a major player in the field of Alumina and Aluminium. This is essential in order to integrate ourselves into the emerging global business scenario. As per the guidelines of Niti Aayog, the plan envisage 3.7 and 15 years progressive growth of the Company. To improve top line and bottom line of the company, new business and functional initiatives have been planned. A new Vision, Mission and Values of the Company have been crafted to move forward in a direction which will ensure steady growth and minimize the price impact of commodity cycle on the profitability. The new business initiatives includes, growth through expansion in core business, value addition through downstream facilities, selective diversification and raw material securitization based on an in depth study of industries & economic outlook, opportunities arising out of emerging business scenario and Company's core capabilities.

Considering the future necessities of the organization and in order to sustain the enhanced business portfolio identified in various thrust areas, the internal processes such as organizational structure, capabilities, culture, process improvements, risk mitigation, CSR and Sustainable development mechanisms are also being strengthened.

## BUSINESS DEVELOPMENT

- Caustic Soda Project in JV with Gujarat Alkalies and Chemicals Ltd. (GACL): NALCO has formed a JV Company "GNAL" with GACL in December, 2015 to set up 2.7 lakh TPA caustic soda plant along with 130 MW captive power plant at Dahej in Gujarat. Pre-project activities have already been initiated.
- Solar Power Projects:
  - i. 20 MW Solar Power Project in Madhya Pradesh: Company has identified Developer for execution of the project and plans to award work soon.
  - ii. 50 MW Solar Power Project: Company plans to issue NIT for selection of developer for EPC of the project at any suitable location in India.
  - iii. 150 MW Solar Power Project in Odisha: Company also plans to set up Solar Power Plant upto 150 MW capacity in Odisha.
  - iv. Rooftop Solar Power Project: Company has plans to set up rooftop solar power project in its various establishments for which feasibility survey has been carried out.
- Wind Power Project: Company plans to set up another Wind Power Plant of 50 MW capacity at any suitable location in India.
- MoU with NTPC for establishment of Gajamara Power Project: Company has signed a MoU with NTPC to form a JV Company for establishment of 3X800 MW coal based Power Plant at Gajamara, Dhenkanal, Odisha.
- MoU with NINL for establishment of Coal Tar distillation plant: NALCO has signed a MoU with Neelachal Ispat Nigam Ltd. (NINL) for setting up a Coal Tar distillation plant in JV mode for production of Coal Tar pitch.

## ANCILLARY DEVELOPMENT

Your Company continued its efforts for development of Ancillary Units and MSEs (Micro and Small Enterprises). Action taken during the year under review towards development of Ancillary Units & MSEs are as follows:

1. The procurement of products produced and services rendered by MSEs (Micro and Small Enterprises) of Odisha including Ancillary Units for FY 2016-17 stands at Rs. 285.88 Crores (as against Rs. 236.64 Crores of last FY, which works out to an increase of 20.8%). The total procurement of products produced and services rendered by MSE units (including those from outside Odisha) stands at Rs. 414.95 Crores during FY 2016-17 (as against Rs. 322.33 Crores during FY 2015-16, which works out to an increase of 28.73%) and it is 21% of the total procurement of Goods and Services made by your Company. The total procurement from SC/ST MSEs stood at Rs. 9.36 Crores, which is 0.47% of the total procurement made by your Company during FY 2016-17. For FY 2017-18, the target for procurement of products produced and services rendered by MSEs has been set at Rs. 415.80 Crores.
2. Your Company received the "Best Mother Plant" award in the "30th Annual State Level Convention - 2016", organised by Odisha Assembly of Small & Medium Enterprises (OASME)", Cuttack on 12th August, 2016.
3. Your Company bagged the "Best Display Award" in the Mother Plant category in the three day long National Vendor Development Programme-cum-Industrial Exhibition and Buyer-Seller meet programme "MSME Expo Odisha - 2016" organised by MSME Development Institute, Ministry of MSME, Govt. of India from 5th to 7th December, 2016 at Kila Maidan, Cuttack.
4. An "On-line UAM (Udyog Adhaar Memorandum) Registration Program" was conducted for on-line filling of Udyog Adhaar Memorandum of MSE vendors at S&P Complex on 01.06.2016 in association with DIC, Angul.
5. The first Sub-PLAC (Plant Level Advisory Committee) meeting for the year 2016-17 was conducted at M&R Complex on 23.07.2016 in association with MSME, DI and DICs.



6. A **State Level Vendor Development-cum-Buyer-Seller** meet was organized at S&P Complex on 28.09.2016 in association with Orissa Assembly of Small and Medium Enterprises (OASME) and MSME, DI, Cuttack.
7. A **State Level Vendor Development-cum-Buyer-Seller meet** was organized at M&R Complex on 04.10.2016 in association with MSME, DI, Rayagada and DIC, Koraput.
8. The **secondSub-PLAC** (Plant Level Advisory Committee) meeting for the year 2016-17 was conducted at M&R Complex on 04.11.2016 in association with MSME, DI and DICs.
9. M&R Complex of your Company participated in the “**Udyog Samashya Samadha Sibiria**” organized by MSME, DI, Govt. of Odisha at Jeypore, Koraput on 05.11.2016.
10. As part of the observance of Vigilance Awareness Week-2016, a **Grievance Redressal Camp** of Suppliers and Service providers of S&P Complex was conducted at S&P Complex on 05.11.2016.
11. The 20th PLAC meeting was conducted by your Company on 27.01.2017 at Bhubaneswar.

#### Procurement made by NALCO from MSEs

- (A) Name of the Unit : Corporate Office, Bhubaneswar, Odisha**  
Nodal Officer: Sri Ashok Kumar Patra, GM(Materials) & ED( Materials) l/c  
NALCOBhawan, P/I, Nayapalli, Bhubaneswar, PIN- 751013  
Mobile: 9437064434, e-mail: ashok.patra@nalcoindia.co.in
- (B) Name of the Unit : Smelter & Power Complex, Angul, Odisha**  
Nodal Officer: Sri Sasibhusan Prusty, GM(Materials) l/c  
Smelter Plant, NALCO Nagar, Angul, PIN- 759145  
Mobile: 9437496819, e-mail: sasibhusan.prusty@nalcoindia.co.in
- (C) Name of the Unit : Mines & Refinery Complex, Damanjodi, Odisha**  
Nodal Officer: Sri Prasanta Kumar Sarangi, GM(Materials)  
Refinery Plant, NALCO, Damanjodi, PIN - 763008  
Mobile: 9437962248, e-mail: prasanta.sarangi@nalcoindia.co.in

Rs. in Crores

Sl. No.	Particulars	Year 2015-16	Year 2016-17	Target for the Year 2017-18
1	Total Annual Procurement (in value) *	1,576.00 *	1,975.30	1,980
2	Total value of goods and services procured from MSEs ( including MSEs owned by SC/ST entrepreneurs)	322.33	414.95	415.80
3	Total value of goods and services procured from only MSEs owned by SC/ ST entrepreneurs	N.A **	9.36	16.63
4	% age of procurement from MSE (including MSEs owned by SC/ ST entrepreneurs) out of total procurement	20.45	21	21
5	% age of procurement from only MSEs owned by SC/ ST entrepreneurs out of total procurement	0	0.47	4
6	Total number of Vendor Development Programmes for MSEs	10	9	10
7	Whether Annual Procurement Plan for purchases from MSEs are uploaded on the official website	Yes	Yes	Uploaded
8	Whether targets reported in Annual Report	Yes	Yes	To be reported

\* This value excludes procurement of Steel & Cement, Coal and Fuel like HFO, LDO and HSD.

\*\* N.A.-Not available. The identification and registration of MSEs owned by SC/ST Entrepreneurs is being done under process with support from DIC, Angul, DIC, Koraput and MSME, DI, Cuttack, Odisha.

#### SAFETY, OCCUPATIONAL HEALTH & ENVIRONMENT

NALCO, being a responsible corporate citizen always gives utmost importance to Environment, Safety and Occupational Health (ESH) and is committed to maintaining a safe, healthy & sustainable work environment across all its production units in compliance to the requirement of the concerned statutes under Environment, Safety and Occupational Health regulations. While adhering to safety norms, your Company



strives for continual improvement of personnel safety and health and the protection of the environment with the goal of zero accidents, illnesses, incidents, waste generation and emissions. Company has achieved 1,81,150 plantation at its production units during the year. All the units are operating with valid "Consent to Operate" under Air & Water Act for the existing capacities and all 4 operating units have valid Factory Licenses, as applicable.

## MINES

### Environment

1. Panchpatmali Bauxite Mine achieved 5-Star rating under Star rating scheme of Indian Bureau of Mines (IBM) for implementation of Sustainable Development Framework.
2. Consent to establish (CTE) and Consent to Operate (CTO) for Panchpatmali Bauxite Mine South Block ML for a capacity of 3.15 MTPY was obtained from SPCB, Odisha.
3. The Biodiversity Conservation Study in and around Panchpatmali Bauxite Mine was conducted by Department of Botany, Utkal University and a report was submitted.
4. A third party audit on Progressive Mine Closure Plan and Final Mine Closure Plan was conducted by FIMI and completed during April-May, 2016.
5. Monitoring of ambient air and water quality in and around Mines and Monitoring of emissions from HEMMs was carried out during the year. All the equipment emissions were found to be well within the norms.
6. World Environment Day 2016, Varamahotsav Week 2016 and Mines Environment and Mineral Conservation (MEMC) Week 2016-17 were observed with large participation of employees and contract workers.

### Occupational Health and Safety

1. Mines safety week celebration along with other mines under "Odisha Metalliferous Mines Safety Week Celebration Committee" (OMMSWCC) was organised.
2. PME of 286 mine employees were conducted during the FY 2016-17. No occupational/Notified disease was detected with any mine employee.
3. Mine achieved ZERO reportable injury during the FY.

## ALUMINA REFINERY

### Environment Management

1. Adequate measures is adopted for control of particulate matters /dust emission by provisions of Electro Static Precipitators (ESP), Dry fog system, Bag filters, Scrubbers, Dust extraction system, water sprinklers, pipe conveyer etc.
2. Online monitoring & Real Time Data Acquisition Systems (RTDAS) have been installed & connected to SPCB as well as CPCB Server.
3. Major solid wastes of Alumina Refinery, i.e. Red Mud and Fly Ash are disposed to well-designed Red Mud Pond & Ash Pond respectively. Dam Stability is inspected periodically by experts from Indian Institute of Science, Bangalore.
4. Alumina Refinery has adopted "Zero Discharge" concept with provision of recycling and reuse of waste water. All the treated waters from Sewage Treatment Plant is used for green belt development. Return water from Red Mud Pond & Ash Pond is recycled back for reuse in plant.
5. Fly ash generated is being utilized for various purposes like brick making, road making, cement making, low lying area filling and for agricultural purpose to achieve 100% utilization as per MoEF notification. During the year, 102.72% of Fly Ash has been utilized.
6. Two number of Rain Water Harvesting projects are implemented.
7. MOU has been signed with the Energy & Resource Institute (TERI), New Delhi for "Rehabilitation of Red Mud" by covering Green belt.

### Safety & Occupational Health Management

- 1) There is no reportable accident & major fire incident.
- 2) Training programs on Safety & Environment awareness along with Behavioural Based Safety were organized for regular employees.
- 3) Awareness training on Safety & Occupational Health imparted to 203 regular employees.
- 4) 1376 contractor workmen availed the formal shop floor training with Toolbox at sites during this FY.
- 5) Periodical Medical Examination (PME) attendance of employees during 2016 is 92%.
- 6) Celebrations like National Safety Week, Chemical Disaster Prevention Day, Road Safety Week were observed for building Safety awareness amongst the workmen of Alumina Refinery.



## SMELTER

### Environment

1. An alternate Project for De-fluoridation of effluent Water by EMRION NANO Technology Commissioned & the plant is in operation. A first time trial, pilot demonstration to plant scale commissioning is successful & presently under study.
2. Re-routing of drain of RP area (phase -I) completed on 02.07.2016 as a result, a portion of surface runoff around 60% (which was flowing outside the plant boundary) was diverted to Holding pool making a mark in water conservation.
3. 2500 MT hazardous waste of carbon area disposed to common hazardous waste treatment storage disposal facility (CHWTSDF), Sukinda, Jajpur.
4. Hazardous waste audit of Smelter Plant was carried out by M/s Global Tech Enviro Experts Pvt. Ltd.
5. Around 240 MT of Carbon portion of SPL was taken by M/s. Green Energy Resources, Sambalpur for trial detoxification.

### Safety

1. There is no reportable accident & major fire incident for current FY.
2. PME of 2898 employees and 3,123 no. of contract labours and CISF personnel completed in this FY.

## CAPTIVE POWER PLANT

### Environment

1. Stack emission has been maintained well within the permissible limit after completion of retrofitting by installing an additional pass (3rd) and revamping of ESPs (electrostatic precipitator) of exiting old ESPs (Unit-1,2,3,4,5 & 6).
2. Online Continuous Monitoring of ambient air quality is being done after installation of 4 nos. of CAAQMS with digital display & transmission of data to OSPCB server.
3. Online Monitoring of effluent quality is being done after installation of online effluent quality monitoring system at the outlet of IDWRS & hooking of the effluent data to the server of SPCCB.
4. Zero discharge has been achieved with respect to industrial effluent by commissioning of recycling facility at the exit point of industrial drain. The recycled water is utilized for ash disposal system.
5. Rain Water Harvesting and Recycling system having harvest pond capacity of 50000M<sup>3</sup>, equipped with 2x250M<sup>3</sup> of pumping capacity was commissioned in September, 2016. The recycled water is used as a make up to Fire hydrant fore bay of Raw Water Cooling Pump House-I. These steps contribute towards improving water conservation & reduce intake drawl from river Brahmani thereby provide water security in CPP. In the year 2016-17, around 2,73,387M<sup>3</sup> of water from rain water harvesting system and around 93,017M<sup>3</sup> of water from exit point was recycled and re-used.
6. Steps have been taken to enhance ash utilization:
  - i) 1st phase construction of ash mound over Ash Pond-II had been completed and process is underway to start 2nd phase construction of ash mound over Ash Pond-II.
  - ii) Ash pond-I Dyke raising work is in progress from 110 MRL to 113 MRL.
  - iii) Your Company has been adopting high concentrated slurry discharge system in Unit-7 to 10 for disposal of fly ash to Ash pond-IV to prevent dust pollution and water conservation.
7. During the year 2016-17, 338 nos. of employees has been imparted training on EHS.
8. STP (Sewerage Treatment Plant)-I & II was operational throughout the year and treated STP water was utilized for horticulture purposes only.

### Nursery activities during 2016-17

Your Company is operating total five nurseries i.e. three at S&P Complex and two at M&R Complex, including the one at Mines which is a high altitude nursery. The nurseries raise various types of seedling for afforestation, ornamental use, fruit bearing seasonal variety seedlings and potted plants which also partially contribute to meet the internal requirement for plantation. Free distribution of seedlings is also done in peripheral areas. The nursery at Mines significantly contributes to the crucial afforestation activities of the backfilled mined-out areas to preserve the natural topography. During this year 16.26 Ha of mined out area is rehabilitated.

### CAUTIONARY STATEMENT

Certain statements made in the Management Discussion and Analysis Report relating to the Company's objectives, projections, outlook, expectations, estimates and others may constitute 'forward looking statements' within the meaning of applicable laws and regulations. Actual results may differ from such expectations whether expressed or implied. Several factors could make significant difference to the Company's operations. These include climatic and economic conditions affecting demand and supply, government regulations and taxation, natural calamities over which the Company does not have any direct control.





## BUSINESS RESPONSIBILITY REPORT FOR 2016-17

### SECTION A: GENERAL INFORMATION ABOUT THE COMPANY

Sl.No.	Particulars	Company Information
1	Corporate Identification Number(CIN) of the Company	L27203OR1981GOI000920
2	Name of the Company	National Aluminium Company Limited
3	Registered Office & Corporate Office	NALCO Bhawan Plot No. P/1, Nayapalli Bhubaneswar -751013, Odisha, India
4	Website	www.nalcoindia.com
5	E-mail ID	company_secretary@nalcoindia.co.in
6	Financial year reported	FY 2016-17
7	Sector(s) that the company is engaged in (industrial activity code-wise)	Bauxite Mines : Industrial Group Code 072 Alumina Refinery : Industrial Group Code 201 Aluminium Smelter : Industrial Gro up Code 242 Electricity Generation : Industrial Group Code 351
8	List of three key products/services that the company manufactures/provides	1. Alumina <ul style="list-style-type: none"> <li>• Calcined Alumina</li> <li>• Alumina Hydrate</li> <li>• Specialty Alumina &amp; Hydrates</li> </ul> 2. Aluminium <ul style="list-style-type: none"> <li>• Standard Ingots</li> <li>• Sow Ingots</li> <li>• T-Ingots</li> <li>• Wire Rods</li> <li>• Billets</li> <li>• Flat Rolled Products (Coils, Sheets &amp; Chequered Sheet)</li> </ul> 3. Electricity
9	a) Number of International Locations	NIL
	b) Locations in India	a) Registered & Corporate Office , Bhubaneswar – 751013, Odisha b) Mines & Refinery Complex, Damanjodi-763008, Odisha c) Smelter Plant, Nalco Nagar, 759145, Angul,Odisha d) Captive Power Plant, Angul, 759122, Odisha e) Port Facilities, Port Area,Visakhapatnam– 530035, Andhra Pradesh f) Wind Power Plants i) Wind Power Plant-I : Gandikota, Andhra Pradesh ii) Wind Power Plant-II : Ludarva, Rajasthan iii) Wind Power Plant-III : Devikot, Rajasthan iv) Wind Power Plant-IV : Jath, Maharashtra g) No. of Port Offices : 03 (Visakhapatnam, Kolkata, Paradeep) h) No. of Regional Offices : 04 (New Delhi, Mumbai, Chennai, Kolkata) i) Branch Office : 01 (Bengaluru) j) No. of Stockyards : 11 (Jaipur, Faridabad, Baddi, Kolkata, Bengaluru, Chennai, Visakhapatnam, Bhiwandi, Silvassa, Vadodara, Delhi )



10	Markets served by the Company	During the FY 2016-17, the following Aluminium markets were catered to by the company (in addition to India) : Bangladesh, Brazil, Korea, Malaysia, Singapore, Vietnam, Indonesia, Taiwan and Nepal.
		Calcedined Alumina produced in excess of the Company's own requirement is exported. During FY 2016-17, the following Alumina markets were catered to by the company (in addition to India) : China, Egypt, Iran, UAE, Oman, Indonesia and Malaysia

## SECTION B: FINANCIAL DETAILS OF THE COMPANY

Sl. No.	Particulars	Company Information
1	Paid up Capital, as on 31.3.17	INR 966.46 crores
2	Total Turnover	Gross Turnover: INR 7932.99 crores,
3	Total Profit after Taxes	INR 668.53 crores
4	Total Spending on Corporate Social Responsibility (CSR) a) in INR : b) As a percentage of average Net Profit during the three immediately preceding financial years (%):	a) A sum of Rs.30.01 crore was spent during the year on CSR activities. The amount required to be spent on CSR during 2016-17 was Rs.27.56 crore. b) The actual expenditure on CSR activities indicated above is 2.18% of average Net Profit for the three previous Financial Years i.e. 2013-14, 2014-15 & 2015-16.
5	List the activities, in which expenditure on CSR as mentioned above, has been incurred	Expenditure incurred on CSR is broadly in the following areas: a) Health Care Services b) Promotion of Education c) Sanitation d) Drinking Water Facility e) Environmental Sustainability f) Infrastructure Development g) Promoting Sports ,Culture and heritage h) Skill development and livelihood generation

## SECTION C – OTHER DETAILS

- Does the Company have any Subsidiary Company/ Companies?  
No
- Do the Subsidiary Company/Companies participate in the BR Initiatives of the parent company? If yes, then indicate the number of such subsidiary company(s)  
Not applicable
- Do any other entity/entities (e.g. suppliers, distributors etc.) that the Company does business with, participate in the BR initiatives of the Company? If yes, then indicate percentage of such entity/entities? [ Less than 30%, 30-60%, More than 60%]  
All the initiatives of Business Responsibility(BR) are totally financed by the organization. No other entities ie. suppliers , contractors etc. are involved in financing any BR initiatives.

## SECTION D: BUSINESS RESPONSIBILITY (BR) INFORMATION

- Details of Director/Directors responsible for BR as on 31.3.2017:
  - The board level CSR & SD Committee comprising of four independent Directors & three functional Director is responsible for BR as on 31.03.2017. During the reporting period, the committee held two meetings on 30.07.2016 & 18.10.2016. The Committee members as on 31.03.2017 are :

Name	Designation	DIN Number
Shri D. Mahanta	Independent Director, Chairman	01583516
Shri S. Sankaraman	Independent Director	07346454
Shri Maheswar Sahu	Independent Director	00034051
Ms. Kiran Ghai Sinha	Independent Director	07726477
Shri K. C. Samal	Director (Finance)	03618709
Shri V. Balasubramanyam	Director (Production)	06965313
Shri B.K.Thakur	Director (HR)	07557093



**b) Detail of the BR head**

- i) Sustainable Development is spearheaded by Director (Production)

Sl.No.	Particulars	Details
1	DIN Number	06965313
2	Name	Shri V.Balasubramanyam
3	Designation	Director (Production)
4	Telephone Number	0674-2300660
5	e-mail ID	dirprod@nalcoindia.co.in

- ii) CSR is spearheaded by Director (HR)

Sl.No.	Particulars	Details
1	DIN Number	07557093
2	Name	Shri B.K.Thakur
3	Designation	Director (HR)
4	Telephone Number	0674-2300430
5	e-mail ID	dirhr@nalcoindia.co.in

**2. Principle wise (as per National Voluntary Guidelines) BR Policy/ Policies**

The Nine Principles, are mentioned below :

**Principle 1 (P1):** Business should conduct and govern themselves with Ethics, Transparency and Accountability.

**Principle 2 (P2):** Business should provide goods and services that are safe and contribute to sustainability throughout their life cycle.

**Principle 3 (P3):** Business should promote the wellbeing of all employees.

**Principle 4 (P4):** Business should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized.

**Principle 5 (P5):** Businesses should respect and promote human rights.

**Principle 6 (P6):** Businesses should respect, protect, and make efforts to restore the environment.

**Principle 7 (P7):** Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner.

**Principle 8 (P8):** Businesses should support inclusive growth and equitable development.

**Principle 9 (P9):** Businesses should engage with and provide value to their customers and consumers in a responsible manner.

**a) Details of Compliance (in Y/N)**

Sl.No.	Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
1.	Do you have a policy/ policies for 9 NVG principles?	Y	Y	Y	Y	Y	Y	Y	Y	Y
2.	Has the policy being formulated in consultation with the relevant stakeholders?	Y	Y	Y	Y	Y	Y	Y	Y	Y
3.	Does the policy conform to any national/ international standards? If yes, specify? (50 words) *	Y	Y	Y	Y	Y	Y	Y	Y	Y
4.	Has the policy been approved by the Board? *	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Is yes, has it been signed by MD/owner/CEO/appropriate Board Director?	Y	Y	Y	Y	Y	Y	Y	Y	Y
5.	Does the company have a specified committee of the Board/ Director/ Official to oversee the implementation of the policy?	Y	Y	Y	Y	Y	Y	Y	Y	Y
6.	Indicate the link for the policy to be viewed online? **	Y	Y	Y	Y	Y	Y	Y	Y	Y
7.	Has the policy been formally communicated to all relevant internal and external stakeholders?	Y	Y	Y	Y	Y	Y	Y	Y	Y





Sl.No.	Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
8.	Does the company have in-house structure to implement the policy/ policies.	Y	Y	Y	Y	Y	Y	Y	Y	Y
9.	Does the Company have a grievance redressal mechanism related to the policy/policies to address stakeholders' grievances related to the policy/ policies?	Y	Y	Y	Y	Y	Y	Y	Y	Y
10.	Has the company carried out independent *audit/evaluation of the working of this policy by an internal or external agency?	Y	Y	Y	Y	Y	Y	Y	Y	Y

Y indicates 'Yes'

- \* The Sustainable Development (SD) Policy captures the essence of all the nine NVG principles, addressing key aspects of International Standards / Guidelines ie. ISO 26000, GRI framework as applicable to our organisation. The SD Policy is approved by the Board & signed by CMD and implementation of the same is done by operating Management Systems conforming to International Standards ie. ISO 9001, ISO 14001, ISO 50001, OHSAS 18001 & the SA8000 standard based on the UN Declaration of Human Rights and the principles of international instruments ie. applicable ILO Conventions. All the five Management Systems are subjected to periodic external audits by independent Certification Bodies besides regular internal audits. Financial systems also undergo internal audits and statutory audits.

\*\* Link of the SD Policy : [http://www.nalcoindia.com/download/SD\\_Policy.pdf](http://www.nalcoindia.com/download/SD_Policy.pdf)

In addition to the Sustainable Development Policy, we have also a few other specific policies, company manuals & documents which reinforce the essence & spirit of the nine NVG principles. These are mentioned below :

NVG Principles	Policies, Manuals, Documents
Principle 1: Ethics, transparency& accountability	1. Code of Business Conduct and Ethics for Board Members and Senior Management
	2. Fraud prevention policy
	3. Whistle blower policy
	4. Vigilance Manual
	5. Marketing Guidelines
	6. Purchase Manual
	7. Contracts Manual
	8. Stores Manual
	9. Delegation of Power
	10. Independent External Monitor Policy
Principle 2 : Sustainability in life-cycle of product	Occupational Health & Safety Policy:
Principle 3: Employee well-being	HR Manual
Principle 4: Stakeholder engagement	Corporate Plan & Vision 2020
Principle 5: Promotion of human rights	Social Accountability Policy
Principle 6: Environmental protection	Environment Policy
Principle 7: Responsible public policy advocacy	Corporate Plan & Vision 2020
Principle 8: Inclusive growth	CSR Policy
Principle 9: Customer value	Quality Policy



- b) If answer to Sl.No. 1 at 2 a), against any principle is 'No', please explain why: (Tick up to 2 options)

S.No.	Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
1.	The company has not understood the Principles									
2.	The company is not at a stage where it finds itself in a position to formulate and implement the policies on specified principles									
3.	The company does not have financial or manpower resources available for the task									
4.	It is planned to be done within next 6 months									
5.	It is planned to be done within the next 1 year									
6.	Any other reason (please specify)									

NOT APPLICABLE

Since answer to the question at Sl.No.1 of 2(a) above is Yes for all the nine NVG principles, the questions at 2 b) are not applicable.

### 3. Governance related to Business Responsibility (BR) :

- 3.1 Indicate the frequency with which the Board of Directors, Committee of the Board or CEO to assess the BR performance of the Company. Within 3 months, 3-6 months, Annually, More than 1 year.

During FY.2016-17, the Committee of the Board held meetings twice i.e. 30.07.2016 & 18.10.2016 to review & advise on BR performance i.e. CSR & SD activities of the organization. Frequency of meeting, on an average during 2016-17, has been twice in a year.

- 3.2 Does the Company publish a BR or a Sustainability Report? What is the hyperlink for viewing this report? How frequently it is published?

Yes, both Business Responsibility (BR) Report and Sustainable Development report are published.

Business Responsibility (BR) Report which is mandatory as per SEBI requirements, is prepared based on National Voluntary Guidelines and is published on annual basis as part of Annual Report. The weblink for 2015-16 report is:

[http://www.nalcoindia.com/investor/35th%20Annual%20Report%20\(2015-16\).pdf](http://www.nalcoindia.com/investor/35th%20Annual%20Report%20(2015-16).pdf).

A Sustainable Development (SD) Report is also prepared aligned with the international guidelines i.e. Global Reporting Initiative Generation4 (GRI G4) requirements as voluntary disclosure and is published on annual basis. The detailed SD Report for the FY 2015-16, based on GRI G4 framework was also published. The weblink is:

[http://www.nalcoindia.com/download/Nalco-Sustainable-Report\\_2017\\_for%20Web\\_upload.pdf](http://www.nalcoindia.com/download/Nalco-Sustainable-Report_2017_for%20Web_upload.pdf)

## SECTION E : PRINCIPLE-WISE PERFORMANCE

### Principle 1 Business should conduct and govern themselves with Ethics, Transparency and Accountability.

- 1.1 Does the policy relating to ethics, bribery and corruption cover only the company?

No.

#### Does it extend to the Group/Joint Ventures/ Suppliers/Contractors/NGOs /Others?

Yes. A strong culture of values & ethics ensuring integrity and fairness in all dealings, is reflected in our organizational practices. The Sustainable Development Policy outlines our commitment towards integrity, ethical practices and transparency. "The Code of Business Conduct & Ethics for Board Members and Senior Management", "Fraud Prevention Policy", "Whistle Blower Policy", "Code of Conduct for prevention of Insider Trading" highlight the priority accorded by the organization to business ethics. CDA rules applicable to all executives while Certified Standing Order applicable to all other employees also emphasise ethical conducts.

Any fraud or alleged fraud in any business transactions, involving employees as well as representatives of vendors, suppliers, contractors, consultants, service providers or any outside agency(ies) are dealt appropriately as per the above policies. Any violation,



irregularities etc. are dealt based on Nalco vigilance Manual & Guidelines and directives circulated by CVC, Chief Technical Examiner of CVC, SEBI etc. In order to further bolster the transparency drive, Integrity Pact is implemented for all contracts of Rs. 5 crore and above. Protection is also extended to any outsider complaining under Public Information Disclosure and Protection of Informer (PIDPI) Scheme of Govt. of India.

## 1.2 How many stakeholder complaints have been received in the past financial year and satisfactorily resolved by the management?

- i) During FY.2016-17, 100 stakeholder complaints related to bribery, corruption and other irregularities were received by the Vigilance dept. taking stock of 19 pending complaints from previous year out of total 119 complaints, 116 complaints were dealt to their logical end and were closed and 3 are pending at different stages of investigation. Detailed investigations of the complaints were carried out based on prescribed procedures of Nalco Vigilance Manual with functional guidance and advice sought from CVC. Appropriate actions i.e. issuance of advisory letters and imposition of minor/major penalties etc. were taken, in commensuration with the gravity of established irregularity. As a preventive vigilance measure, suggestions for a few important systemic improvements related to property return, unauthorized absenteeism, tender & contract, grievance handling of contract worker, dispatch of finished product etc. were also made during the year.
- ii) In total, 301 number of investor complaints were received during the FY. 2016-17 and all of them have been resolved satisfactorily. The detailed breakup of investor related complaints is given below :

Particulars	Received during the year	Complaints resolved	Complaints pending
SCORES	04	04	Nil
Stock Exchanges	02	02	Nil
Individuals	295	295	Nil
<b>TOTAL :</b>	<b>301</b>	<b>301</b>	<b>NIL</b>

- iii) In order to address the provisions of Right to Information Act (RTI), an officer is designated as Public Information Officer and is made responsible for providing information sought by stakeholders. During FY. 2016-17, a total of 197 applications were received in addition to the 17 pending ones as on 01.04.2016. As on 31.3.17: 176 queries have been settled including 01 query transferred to other public authority, while 12 applications have been rejected and the balance 26 queries are in different stages of investigation. As regards to "First Appeals", a total of 48 applications were received during the year while number of pending applications from previous year was NIL. The status as on 31.3.17 is : 44 appeals have been settled with no application transferred, while one appeal was rejected and 3 applications were pending.

**Principle 2 : Business should provide goods and services that are safe and contribute to sustainability throughout their life cycle.**

- 2.1 List up to 3 of your products or services, whose design has incorporated social or environmental concerns, risks and/or opportunities.

The three major products are : Calcined Alumina, Aluminium, Electricity.

Calcined Alumina is produced conforming to internationally recognized Metallurgical Grade Alumina standard and while high purity primary Aluminium is produced conforming to the P1020A specifications mandated for London Metal Exchange (LME) grade registration. Electricity generated by CPP caters to our Smelter plant and surplus power, if any, is exported to the grid.

Comprehensive Environment impact assessment was carried out and Environment Management Plan approved by Regulatory Authority is implemented to mitigate any risks regarding negative impacts on environment or society, emanating from products, processes & services. The initiatives taken as per the plan are monitored by regulatory agencies. Aspect Impact Study, Hazard Identification & Risk Assessment and Emergency Management Plans are also drawn up with periodic reviews to address environmental and social risks. On Site Emergency Management Plans etc. are implemented at units to address Environmental and Social concerns in respect of our products & processes. Sustainable mining practices are adopted in the mines as per progressive Mines closure plan.



The environment concerns, risks, opportunities for our products are addressed as outlined below at Table-A:

TABLE : A				
Unit	Products	Environmental Risk areas	Environmental concerns	Opportunities
Alumina Refinery	Calcined Alumina	Environmental pollution comprising of <ul style="list-style-type: none"> <li>• Air Pollution</li> <li>• Water pollution</li> <li>• Land contamination</li> </ul> With risk associated with Health, Safety, Environment & Ecology	• Fly Ash	<ul style="list-style-type: none"> <li>• Higher utilization of fly ash by motivating entrepreneurs for utilization of fly ash in areas such as :Utilisation of fly ash in manufacturing of fly ash bricks, cement, road construction, dyke making, filling up low lying areas in organization premises.</li> </ul>
			• Lime grit	<ul style="list-style-type: none"> <li>• fly ash brick manufacturing using lime grit.</li> </ul>
			• Redmud	<ul style="list-style-type: none"> <li>• Redmud utilization for extraction of Iron concentrate and Gallium from Redmud.</li> </ul>
			• Waste water	<ul style="list-style-type: none"> <li>• Recycling of return water from ash pond and red mud pond for reuse in ash slurry pumping, red mud slurry making and mud washing thus recycling caustic.</li> </ul>
Smelter	Aluminium	Environmental pollution comprising of <ul style="list-style-type: none"> <li>• Air Pollution</li> <li>• Water pollution</li> <li>• Land contamination</li> </ul> With risk associated with Health, Safety, Environment & Ecology	Generation of hazardous waste like : <ul style="list-style-type: none"> <li>• spent potlining</li> </ul>	<ul style="list-style-type: none"> <li>• i)Spent potlining utilization in Cement industry and power plant is being explored..</li> </ul>
			• Dross	<ul style="list-style-type: none"> <li>ii)Aluminium Dross is recycled in pots.</li> </ul>
			• shot blasting waste etc.	<ul style="list-style-type: none"> <li>iii) Non recyclable hazardous waste like shot blasting waste, furnace slags are sent to common HW landfill at Sukinda, Jajpur.</li> </ul>
			• Stack, Flouride & Particulate emission due to pot operation	<ul style="list-style-type: none"> <li>• Prevention of HF gas leakage from potline by using leak proof pot hoods. Absorption of Fluoride gases in alumina by dry scrubbing method in FTPs thus recycling of fluorine to process</li> </ul>
			• Spillage of bath material during different operating processes.	<ul style="list-style-type: none"> <li>• Provision of automatic shutoff valve and recycling of spillage bath.</li> </ul>
			• Generation of fluoride contaminated surface runoffs.	<ul style="list-style-type: none"> <li>• Recycling of water by collecting surface runoff in 3 holding pools and defluoriding by Emrion Nano based Defluoridation technology</li> </ul>



Unit	Products	Environmental Risk areas	Environmental concerns	Opportunities
CPP	Electricity	<ul style="list-style-type: none"> <li>Air Pollution</li> <li>Water Pollution</li> <li>Land Contamination</li> </ul>	<ul style="list-style-type: none"> <li>Fly Ash</li> </ul>	<ul style="list-style-type: none"> <li>Fly ash utilization in brick making, cement plant, road construction, reclamation of low lying area, abandoned stone queries, abandoned coal mines void, Ash dyke &amp; mounds etc.</li> </ul>
			<ul style="list-style-type: none"> <li>Waste water</li> </ul>	<ul style="list-style-type: none"> <li>i) Recycling of ash pond decanted water for ash slurry making.</li> <li>ii) Utilisation of STP water for horticulture &amp; plantation.</li> </ul>
Mines	Bauxite	<ul style="list-style-type: none"> <li>Air Pollution,</li> <li>Noise pollution</li> <li>Land Contamination</li> </ul>	<ul style="list-style-type: none"> <li>Emissions</li> </ul>	<ul style="list-style-type: none"> <li>Heat recovery from Flue gas</li> </ul>
			<ul style="list-style-type: none"> <li>Waste water</li> <li>Dust</li> </ul>	<ul style="list-style-type: none"> <li>Recycling of treated waste water for dust suppression and horticulture activities</li> </ul>
			<ul style="list-style-type: none"> <li>Overburden</li> </ul>	<ul style="list-style-type: none"> <li>i) Reuse of overburden material for backfilling of mined out area</li> <li>ii) Rehabilitation of backfilled area with plantation thereby converting the barren mined out area into deep forest</li> </ul>
			<ul style="list-style-type: none"> <li>Explosive</li> </ul>	<ul style="list-style-type: none"> <li>Use of NONEL to delay blasting sequence to reduce noise level and use of Ripper Dozer where ever possible.</li> </ul>

- 2.2 For each product, provide the following details in respect of resource use (energy, water, raw material) per unit of product (optional).
- i) Reduction during sourcing/production/ distribution achieved since the previous year throughout the value chain. Sustainable use of raw material, conservation of energy and optimum use of water are the thrust areas with regards to conservation of resource. The achievements during the last fiscal is depicted in Table B below:

TABLE-B				
Specific Consumption per unit of production	Unit of Measurement	Norm	Previous Year (FY. 2015-16)	Current Year (FY. 2016-17)
Explosive consumption in Bauxite Mines	Gram/MT	160	157	143
Coal for steam generation in SPP of Alumina Refinery	Tonne/Tonne	0.650	0.658*	0.653
Electrical energy in Alumina Refinery	KWH/Tonne	335	323.03	320.45
DC Energy consumption in Smelter	KWH/MT	13500	13453	13,448
Net carbon consumption for hot metal in Smelter	Kg/MT	430+10	426	432
Coal consumption in CPP on net power generation	Kg/KWH	0.90	0.905	0.906

\* This is a restatement based on revised computation

- ii) Reduction during usage by consumers (energy, water) has been achieved since the previous year. Though information on use of energy and water at consumers facility is not captured at our end but supply of consistent quality products by us enables the consumers i.e. mostly secondary producers and downstream facilities, to have smooth operations in



their plant, resulting in reduction of rejects & waste. This facilitates the consumers to optimally plan their resource requirement resulting in economy of raw material, energy and water. Besides, enhanced use of aluminium in manufacturing of railcoaches & automobiles and in the aerospace & packaging sectors, contributes to conservation of fuel resulting from reduction in weight. Recyclability of aluminium also offers tremendous scope of application in civil construction, power transmission & strategic sectors like defense, with resultant conservation of energy, water etc.

### 2.3 Does the company have procedures in place for sustainable sourcing (including transportation)?

Yes.

Sustainable sourcing of Bauxite & Energy are ensured by locating the Alumina Refinery & Smelter Plant close to captive sources. The Alumina Refinery is located close to our captive Mines i.e. the Panchpatmali Bauxite Mines & energy-efficient transportation of Bauxite to the Refinery is made possible by a single flight long distance cable belt conveyor. Likewise our Smelter is situated in the vicinity of the Captive Power Plant which in turn is located close to the coal mines of M/s MCL, our source as per the prevailing Fuel Supply agreement (FSA). Coal is supplied to Our Captive Power Plant by a dedicated merry go round rail system and power is evacuated to Smelter through EHT transmission lines, thereby, reducing transmission loss and minimizing transmission disruption. Any gap in coal requirement & availability through FSA is made up through procurement through E-Auction or bridge linkage or both, as applicable. The option of using imported coal is also available & is exercised, depending on the exigency of requirements & outcome of detailed cost-benefit analysis. Allocation of new deposit of about 79 Million Tonnes of Bauxite at Pottangi Mines & Utkal D & E coal blocks with coal reserve of 200 Million Tonnes, has the potential to strengthen sustainable sourcing of the major inputs i.e. Bauxite and Coal.

All other critical inputs are procured through competitive bidding from multiple suppliers and vendors, enhancing our vendor base and thus, addressing the risk of over dependence on a few suppliers. In line with prevailing Govt. guidelines, preference is also given to local vendors in some sectors. Nurturing of local vendors, is expected to develop sustainable source of supplies while contributing to local economic development. Import of Caustic soda is done through our dedicated port facility at Vizag, with fully mechanized loading and unloading facility. Our own railway siding at Budhapank, Angul and Damanjodi facilitate rail transportation of material, which leads to less emissions.

### 2.4 Has the company taken any steps to procure goods and services from local & small producers, including communities surrounding their place of work? If yes, what steps have been taken to improve their capacity and capability of local and small vendors?

Ancillary Development Policy of the organization promotes development of local vendors. The MSME facilitation cells at units implement the policy by providing guidance in Technical, Commercial areas to these vendors to improve their competitiveness. The goods and service which can be offered by MSME units are listed and displayed prominently and web hosted in our website for wider circulation and awareness. Display halls at M&R complex and S&P complex display the products along with technical knowhow for developing the product & information regarding annual requirement and last procurement price etc. are provided to MSME entrepreneurs. Relaxation in tendering process i.e. waiving of tender security and tender fees etc are extended to such units to encourage them to participate in bidding. Our purchase manual is suitably amended to extend purchase preference to MSME units quoting in the band of 15% of lowest quoted price for the products and service earmarked for them. List of Goods and Services which can be procured from MSEs are available in the our website

- The procurement of products produced and services rendered by MSE (Micro and Small Enterprises) units of Odisha inclusive of Ancillary Units during 2016-17, was Rs 285.88 crores as against Rs 236.64 Crores of last financial year, while the same from MSE units (including those from outside Odisha) was worth Rs.414.95 crores against previous year procurement of Rs 322.33 crores. The procurement from MSEs during the year was 21% of total procurement of goods and services made by Nalco. The total procurement from SC/ ST MSEs stood at Rs 9.36 Crores, which is 0.47% of the total procurement made by Nalco during FY 2016-17. For FY 2017-18, the target for procurement of products produced and services rendered by MSEs has been set at Rs. 415.80 Crores.
- Two Sub-PLAC (Plant Level Advisory Committee) meetings were conducted during the year 2016-17, at M&R Complex on 23.07.2016 & 04.11.2016, in association with MSME, DI, Rayagada and DIC, Koraput. The 20<sup>th</sup> PLAC meeting in this regard was conducted by Nalco on 27.1.2017 at Bhubaneswar. State Level Vendor Development cum Buyer- Seller meet was organized at S&P Complex on 28.9.2016 in association with Orissa Assembly of Small and Medium Enterprises (OASME) and MSME, DI, Cuttack and in M&R Complex on 04.10.2016 in association with MSME, DI, Rayagada and DIC, Koraput.
- Our participation in various MSME exhibitions and conventions also provides the much needed exposure and encouragement to many vendors. During the year, we participated in the "30th Annual State Level Convention - 2016" organised by Odisha Assembly of Small & Medium Enterprises (OASME)", Cuttack on 12<sup>th</sup> August 2016 and was honored with the "Best Mother Plant" award in recognition of our contribution towards the cause. Also Nalco bagged the "Best Display Award" in the Mother



Plant category in the Three day long National Vendor Development Programme-cum- Industrial Exhibition and Buyer- Seller meet programme "MSME Expo Odisha - 2016" organised by MSME Development Institute, Ministry of MSME, Govt. of India from 5th to 7th Dec, 2016 at Kila Maidan, Cuttack

**2.5 Does the company have a mechanism to recycle products and waste? If yes what is the percentage of recycling of products and waste?**

Yes.

We recycle process waste, metal rejects and waste products, effluent & industrial drain water, decanted water from Ash pond and Redmud Pond to maximum possible extend. We also practice rain water harvesting, ground water charging and sewerage water treatment. In the year 2016-17, 16163255 cubic metre water from CPP ash pond & 9293695 cubic meter water from Refinery ash pond and 3473918 cubic meter water from Refinery Red Mud Pond was recycled. Some of our achievements in this direction is presented in the table below.

TABLE C : Recycling/ Reuse of waste		
Unit	Utilisation	Percentage
Bauxite Mines	Overburden utilized for concurrent reclamation of mined out areas	100%
Alumina Refinery	Caustic Soda recycled from waste redmud	5.76%
	Ash utilization	102.72%
	Recycling of Ash pond water	98.31%
Smelter	Recycling of Aluminium scrap	100%
	Aluminium dross recycled as input to process	87.87%
	Recycling of spent anode	100%
CPP	Ash Utilisation	37.88%

**Principle 3: Business should promote the wellbeing of all employees.**

**3.1 Please indicate the total number of employees :**

As on 31.3.2017, the total strength of employees in regular employment is 6950.

**3.2 Please indicate the Total number of employees hired on temporary/contractual/casual basis as on 31.3.17 :**

Six persons are employed on direct contract basis in the Hospitals and Civil Engineering function. Job Contractors working in areas like hospitality, maintenance, sanitation, conservancy and project activities etc. have engaged 9697 workers to discharge their contractual obligations.

**3.3 Please indicate the Number of permanent women employees :**

As on 31.3.2017, the strength of permanent women employees is 354.

**3.4 Please indicate the Number of differently-abled permanent employees :**

Total strength of differently-abled persons on regular employment as on 31.3.17, is 86.

**3.5. Do you have an employee association that is recognized by management.**

Yes. There are 29 registered trade unions in different units & offices. The trade union having majority membership in the unit is given the status of a recognised Union. Total five trade unions, one each in the four production units & Corp. Office, are operating as recognized trade unions. We also have three officers' associations and three SC & ST welfare associations.

**3.6 What percentage of your permanent employees, is members of this recognized employee association?**

About, 99% non-executive employees are members of the Registered Unions. As far as the recognised Unions are concerned, 52% of unionized employees are members of these Unions.

**3.7 Please indicate the Number of complaints relating to child labour, forced labour, involuntary labour, sexual harassment in the last financial year and pending, as on the end of the financial year.**

The status is :

S I . No.	Category	No. of complaints pending as on 31.03.2016	No. of complaints filed during the F.Y. 2016-17	No. of complaints pending as on 31.03.2017
1	Child labour/ forced labour/ involuntary labour	Nil	Nil	Nil
2	Sexual harassment	01	01	01

As on date, the above complaint on sexual harassment is closed. No such complaint is pending, as on now.



- 3.8 **What percentage of your under mentioned employees were given safety & skill upgradation training in the last year?**  
 – Permanent Employees; Permanent Women Employees; Casual/ Temporary/ Contractual Employees; Employees with disabilities.

The status related to above training is placed below :

Category of employees	Present Strength	Percentage of persons undergone Safety and Skill Upgradation Training
Permanent Employees	6950	42 %
Permanent Women Employees	354	43 %
Casual/ Temporary/ Contractual Employees	06	08%
Employees with Disabilities	86	19%

**Principle 4 : Business should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized.**

- 4.1 **Has the company mapped its internal and external stakeholders?**

Yes. Internal and external stakeholders have been identified. In addition to mapping internal stakeholders ie. employees, we have also mapped external stakeholders ie. Customers, suppliers, investors, Government and their representatives and committees, Local Communities, Regulatory authorities ,Service providers & job contract workers.Concerns and perceptions of these internal & external stakeholders are captured and periodically updated through formal or informal channels of communication to focus on the relevant issues and chalk out suitable action plan for response.

- 4.2 **Out of the above, has the company identified the disadvantaged, vulnerable and marginalized stakeholders.**

Yes. Vulnerable, marginalised and disadvantaged stakeholders are identified in peripheral areas of our Mines and Plants situated in localities , where the population mostly belong to the socio-economically disadvantaged strata .

- 4.3 **Are there any special initiatives taken by the company to engage with the disadvantaged, vulnerable and marginalized stakeholders.**

The special initiatives aimed towards improving the lives of those who are socio-economically marginalized & economically disadvantaged , comprise of issues prioritized by CSR wing with the programs ranging from large-scale, long-term projects to one-off need-specific initiatives as mentioned below:

- Health Care facilities for peripheral villages through Mobile Health Unit (MHU) and Out Patient checkup facilities
- Residential Education for tribal students of peripheral villages at Damanjodi in collaboration with reputed schools at Koraput , Jeypore and Bhubaneswar
- “Nalco ra Aliali Jhia” scheme providing education support to 181 meritorious girl students belonging to Below Poverty Line category from peripheral areas of plant operation
- Solar street light installed in 8 peripheral villages of Damanjodi
- Provision of water facility in 17 peripheral villages of Damanjodi
- Skill Development programmes to enhance employability of the local unemployed youth and contract workers.

**Principle 5: Businesses should respect and promote human rights.**

- 5.1 **Does the policy of the company on human rights cover only the company or extend to the Group/Joint Ventures/Suppliers/Contractors/NGOs/Others?**

The policy on Human Rights not only covers all our employees but also is extended to service providers of all the outsourced jobs. Human Rights practices covered in the mandatory Human Resource Management practices mandated in the various applicable statutes i.e. Factories Act 1948, Industrial Disputes Act 1947, Mines Act 1972 , Contract Labour (R&A) Act 1970, Payment of Gratuity,1972 statutes are implemented across the supply chain and necessary screening & evaluation is done for suppliers and contractors. Also, in the job contract conditions, important human rights concerns i.e. child labour, forced and compulsory labour are suitably addressed to restrain any human rights violation. Our units including Corporate Office is certified to SA 8000.

- 5.2 **How many stakeholder complaints have been received in the past financial year and satisfactorily resolved by the management?**

One complaint related to sexual harassment was received during the year i.e. 2016-17 and investigation was in progress as on 31.03.2017. As on date, the complaint is closed and no such complaint is pending(ref: 3.7).

Status of complaints from other stakeholders are outlined at I.2.





**Principle 6: Business should respect, protect, and make efforts to restore the environment.**

**6.1 Does the policy related to Principle 6 cover only the company or extends to the Group/Joint Ventures/Suppliers/Contractors/NGOs/others**

Corporate Environment Policy of the organization affirms that it assigns high importance to promotion and maintenance of a pollution free environment in all its activities, by using non-polluting and environment friendly technology. Environment Management System conforming to the International Standard ISO 14001 is implemented in our units and the Corporate Environment Policy is applicable to all units, offices. Units implement the environment policy with specific environment objectives identified in their areas of operations. Suppliers and Contractors are also brought into the ambit of the policy by including the relevant clauses in NIT and Workorders.

**6.2 Does the company have strategies/ initiatives to address global environmental issues such as climate change, global warming, etc? Y/N. If yes, please give hyperlink for webpage etc.**

Initiatives taken to address global environment issues such as climate change, global warming is highlighted below:

- Three Wind Power Plants – i) 50.4 MW at Gandikota, Andhra Pradesh ii) 47.6 MW at Jaisalmer, Rajasthan, iii) 50 MW at Devkote, Rajasthan are in operations while the fourth one i.e. 50.4 MW at Jath, Sangli, Maharashtra is commissioned
- Three Roof-top Solar Photo-Voltaic Plants of capacity 160 KWp, 100 KWp & 50 KWp are operating at Corporate Office, NALCO Township and Nalco Research and Technology Centre (NRTC) respectively at Bhubaneswar.
- Setting up of 50 MW solar power plant & 50 MW wind power plant, at suitable locations in India, is planned.
- The contract for setting up of a 20 MW Utility scale Solar PV power project in Madhya Pradesh is under consideration.
- The feasibility reports for setting up roof top solar plants at various locations of Nalco at Damanjodi, Angul & Vishakhapatnam, are under study.

Under the Perform, Achieve and Trade (PAT) scheme, a market based mechanism for promotion of energy efficiency, the Bureau of Energy Efficiency (BEE) had set targets for reduction of Specific Energy Consumption. During the year total 36,119 Energy Saving Certificates (EScerts) were issued in favour of our organization, in recognition of achieving results better than the assigned energy saving targets for PAT cycle 1 given to both the Designated Consumers i.e. M&R and S&P complex. Various initiatives in the units are also in progress for meeting PAT cycle 2 targets set for the years i.e. 2016-19. The major initiatives on energy conservation taken at different units are highlighted in the annual report.

**6.3 Does the company identify and assess potential environmental risks?**

Yes, Environmental Impact Assessment studies are conducted for all our production facility and appropriate Environment Management plans are developed. In addition to this environment impacts of key business activities are revised every year to identify and assess potential environment risks and to take steps for mitigating the identified impacts. Similarly in the Mines a well formulated mining plan for sustainable mining practice is implemented since beginning. The progressive Mine Closure Plan & the Mine closure plan, aims for preservation of the ecology and restoration of mining site to its original shape. Site specific wild life conservation and management plan helps in protection of forest creatures. Aspect-Impact analysis is carried out for Mines and all plants and appropriate mitigation measures are taken for significant impact areas. These provide a basis for various environment initiatives. Risks are identified over product lifecycle and detailed at 2.1 above.

Perfluorocarbons (PFCs) i.e. tetrafluoromethane (CF<sub>4</sub>) and hexafluoroethane (C<sub>2</sub>F<sub>6</sub>) emissions, produced in the primary aluminium reduction process at Smelter during anode effects is monitored very closely. The Smelter Plant is equipped with the most advanced ALPSYS pot regulation system, which helps in reducing the frequency and duration of anode effect by timely dosing alumina into the pot. For the year 2016-17, the PFC emission from Smelter Potline has been estimated using AP (Aluminium Pechiney) overvoltage method and the values are given below:

CF <sub>4</sub> (kg/T Al)	0.0330
C <sub>2</sub> F <sub>6</sub> (kg/T Al)	0.0040

**6.4 Does the company have any project related to Clean Development Mechanism (CDM)? If so, provide details thereof. Also, if yes, whether any environmental compliance report is filed?**

50.4 MW Wind Power Plant at Gandikota and 47.6 MW Wind Power Plant at Jaisalmer are taken under Clean Development Mechanism (CDM) of the United Nations Framework Convention on Climate Change (UNFCCC). The wind power projects are grid connected renewable energy projects that generate electricity through utilization of wind energy and help in significant reduction of GHG emissions.

50.4 MW Wind Power Plant at Gandikota - CDM project

CDM Project activity has obtained Host Country Approval (HCA) from Ministry of Environment and Forests, Govt who are the National CDM Authority (NCDMA) in India. The project activity has been validated by (UNFCCC) accredited Designated Operational Entity (DOE). Registration of the project with UNFCCC is under process. Estimated amount of annual average GHG emission reductions 85927 tons of CO<sub>2</sub> equivalent.

47.6 MW Wind Power Plant at Jaisalmer - CDM project



CDM Project activity has obtained Host Country Approval from National CDM Authority (NCDMA), Ministry of Environment and Forests, Govt. of India. Registration of the project with UNFCCC is under process. Estimated amount of annual average GHG emission reductions 83,426 tons of CO<sub>2</sub> equivalent.

**6.5 Has the company undertaken any other initiatives on – clean technology, energy efficiency, renewable energy? If yes, please give hyperlink for webpage etc.**

Yes. Steps are also taken for green energy generation i.e. Wind Power & Solar Power

In addition to the Wind Power Plants mentioned above, the other initiatives implemented are:

- One Wind Power Plant of 50 MW at Devikot, Jaisalmer, Rajasthan is in operation while one 50.4 MW plant at Jath, Sangli, Maharashtra is commissioned.
- Three Rooftop Solar Power Plants of capacity 160 kWp, 100 kWp & 50 kWp are in operation at the Nalco Corporate Office, Nalco township & Nalco Research and Technology Centre (NRTC), Gothapatna, at Bhubaneswar.
- Setting up of 50 MW solar power plant & 50 MW wind power plant at suitable locations in India, is planned.
- The contract for setting up of a 20 MW Utility scale Solar PV power project in Madhya Pradesh is under consideration.
- Feasibility reports prepared for setting up rooftop solar plants at various locations of Nalco at Angul, Damanjodi & Vishakhapatnam are under study.

**6.6 Are the Emissions/Waste generated by the company within the permissible limits given by CPCB/SPCB for the financial year being reported?**

Emissions/waste generated by the operating units of the company are within the permissible limits prescribed by CPCB/ SPCB. The environmental statement containing such information is submitted to regulatory authority every year.

**6.7 Number of show cause/ legal notices received from CPCB/SPCB which are pending (i.e. not resolved to satisfaction) as on end of Financial Year.**

Nil

**Principle 7: Business, when engaged in influencing public and regulatory policy, should do so in a responsible manner.**

**7.1 Is your company a member of any trade and chamber or association? If Yes, Name only those major ones that your business deals with:**

Yes, The major ones are :

1. Aluminium Association of India
2. Standing Conference of Public Enterprise (SCOPE), New Delhi
3. Federation of Indian Mineral Industries (FIMI), New Delhi.
4. National Safety Council, Mumbai
5. TQM Division of CIL
6. Quality Circle Forum of India, Secunderabad
7. Indian Ceramic Society, Kolkata
8. Confederation of Indian Industry (CII ), New Delhi
9. Utkal Chamber of Commerce & Industries, Bhubaneswar
10. Engineering Export Promotion Council, Kolkata
11. Federation of Indian Export Organisation, New Delhi
12. International Chamber of Commerce, Delhi
13. Chemical and Allied Products Export Promotion Council, Kolkata

**7.2 Have you advocated/lobbied through above associations for the advancement or improvement of public good? If yes specify the broad areas (E.g., Governance and Administration, Economic Reforms, Inclusive Development Policies, Energy security, Water, Food Security, Sustainable Business Principles, Others)**

Yes. Broad areas taken up for public good are :

- > Avenues for enhancement of utilization of fly ash
- > Climate Change Action Plans
- > Environmental Stewardship
- > Inclusive Development & Equitable Growth
- > Skill Development & Employment Generation
- > Enhancing use of Aluminium in various sectors as sustainable and strategic material for the future.
- > Sustainable mining practices including mineral conservation
- > Energy , Water , Mineral conservation
- > Safety & Health at workplace
- > Economic Leadership by betterment of industries.
- > Employee involvement and Work life balance



**Principle 8: Businesses should support inclusive growth and equitable development**

**8.1 Does the company have specified programmes/ initiatives/projects in pursuit of the policy related to Principle 8? If yes, details thereof.**

Yes. Specific initiatives taken up during 2016-17, in the peripheral villages in order to promote inclusive growth, are :

- i) Promoting education, by sponsoring tribal children for formal education in reputed residential schools
- ii) Providing financial assistance to meritorious and poor girl students of peripheral villages under "Nalco Ki Ladli" scheme.
- iii) Providing health care services at the peripheral villages at our units at Damanjodi and Angul
- iv) Constructing toilets in schools under Swachh Vidyalaya Abhiyan
- v) Drinking water supply projects
- vi) Infrastructure development work
- vii) Plantation work
- viii) Promotion of culture and preservation of heritage

**8.2 Are the programmes/projects undertaken through in-house team/own foundation/external NGO/government structures/any other organization?**

The CSR activities of the Company are undertaken through Nalco Foundation, directly by Nalco and Rehabilitation and Periphery Development Advisory Committees (RPDACs)

- i. Nalco Foundation, the CSR wing of NALCO, is focused on development of villages located within 15 kms. radius of operational areas and has adopted a project based accountability approach through baseline surveys ensuring participation of the stakeholders in decision making process.
- ii. Some of the CSR projects are also being executed by Nalco directly.
- iii. The Govt. of Odisha has constituted Rehabilitation & Periphery Development Advisory Committee (RPDAC) for Angul Sector and Damanjodi Sector under the Chairmanship of respective Revenue Divisional Commissioner, for Peripheral Development programmes. Members of the Committee comprise of District Collector, Local MLAs, MPs, people's representatives and representatives from Nalco. RPDAC selects the projects to be taken up, allocate fund and monitor overall execution of the projects.

**8.3 Have you done any impact assessment of your initiative?**

- i. Social Impact Assessment of projects of Nalco Foundation was conducted by Central University of Odisha, Koraput during the year 2012
- ii. Recently, a MoU is signed with Utkal University, Bhubaneswar to carry out the Social Impact Assessment (SIA) of the CSR projects implemented by Nalco.

**8.4 What is your company's direct contribution to community development projects- Amount in INR and the details of the projects undertaken.**

During the financial year 2016-17, a total amount Rs.30.01crore has been spent for CSR activities. Some of the major activities are:

- i) In total 755 students from periphery villages of Damanjodi and Pottangi mines area have been sponsored for formal education in 3 residential schools viz. a) Kalinga Institute of Social Science (KISS), Bhubaneswar; b) Koraput Development Foundation (KDF), Jeypore; c) Bikash Vidyalaya, Koraput. Also 4129 students from peripheral areas of our operations at Damanjodi and Angul are provided education in company-aided schools.
- ii) In the "Nalco ra Aliali Jhia" scheme, financial assistance of Rs.6000/(Rupees Six thousand) per student per year, is extended to students for meeting their expenses towards uniform & study materials etc., commencing from class VIII till Class X. Every year, 100 such girl students are admitted in Class VIII (50 students from Angul area and 50 students from Damanjodi area). During FY 2016-17, 181 students were supported under this Scheme. This is in line with Government objective of "Beti Bachao & Beti Padhao".
- iii) Enhancement of skill of youth as per requirement, in the districts where company is operating.
- iv) Nalco Foundation with involvement of HelpAge India, Wockardt Foundation & Lions Club is operating Mobile Health Units (MHUs) in order to provide free healthcare services to the community at their doorstep. Total 7 MHUs, 4 in M&R Complex, Damanjodi and 3 in S&P Complex, Angul are extending this primary health service to the villagers which include free medicine, diagnostics service and awareness building i.e. Information, Education, Communication (IEC) activities at the doorstep of local communities in the periphery villages. In addition to above, one specialist OPD centre meant for out-patient treatment of people of periphery village in Angul sector is also operating in S&P Complex. The centre is functioning with a qualified doctor & para medical staffs. During the year 2016-17 total 1,12,809 patients have been treated through above.
- v) In response to Government of India call for Swachh Iconic Shrine development, the Iconic Shrine, "Puri" is taken up for development as a multi stake partner to transform it to a Swachh Pilgrimage Place.
- vi) Action has been initiated to make 11 peripheral villages of S&P complex, Angul and M&R complex, Damanjodi open defecation free.
- vii) The Company has distributed 4 lakh bacteria free drinking water pouches for drinking water facility to the pilgrims/devotees during Car Festival 2016 at Puri.
- viii) Supply of Drinking water through tanker to periphery villages of S&P complex, Angul during summer.
- ix) Provision of safe drinking water facility in 17 periphery villages of M&R complex, by installation of bore well with pumping facility.



- x) The Company has extended financial assistance for PARAB-Koraput, a State level tribal festival organized by district council for culture.
- xi) Solar Street light have been installed in 8 periphery villages of M&R complex.
- xii) The Company has undertaken projects for infrastructural development work in periphery villages and plantation in periphery of operating units as well as in and around Bhubaneswar.

**8.5 Have you taken steps to ensure that this community development initiative is successfully adopted by the community?**

In collaboration with Government bodies, NGOs and with other Programme Implementing Agencies (PIA), community initiatives in the areas of health, education, livelihood, rural development etc. are planned and implemented.

**Principle 9: Businesses should engage with and provide value to their customers and consumers in a responsible manner.**

**9.1 What percentage of customer complaints/consumer cases are pending as on the end of financial year i.e. 31<sup>st</sup> March 2017?**

A laid down procedure in line with ISO 9001 requirements is in place for resolution of complaints which may arise from time to time with regard to various issues such as payment, late delivery, quality, quantity or documentation etc. Depending upon the nature of the complaint, NALCO's representatives from Regional Offices and/ or technical personnel from the plant visit the customer's premises to examine the complaint and make on-the spot assessment. In the instances where a compensation/ claim is made by the customer on account of defects, a committee is formed, who, after all the necessary checks, put up their proposal recommending the appropriate amount of compensation, if any. The same is paid to the customer, after approval of competent authority as a one-time settlement. The customer complaints are also reviewed for improvement of our processes and products.

Customer Complaints pending as on 31.3.2017, is 22.2% of total customer complaints pending as on 31.3.2016 & received during FY:2016-17 ie. 18 numbers. Status report on Customer Complaints as on 31.3.17 is:

Complaints pending as on 31.03.2016	2
Complaints received during FY 2016-17	16
Complaints disposed during FY 2016-17	14
Complaints pending as on 31.3.17	4
Percentage of Customer Complaints Pending on 31.3.17	22.22%

Out of the 4 pending complaints, one complaint is closed as on 30.06.2017.

**9.2 Does the company display product information on the product label, over and above what is mandated as per local laws?**

No.

The product information on product label as mandated by law is sufficient to define our product in the market and adequate for the customer to make informed choice. For Aluminium metal, the product grade, stack no., bundle no., net weight is displayed on the product label. In case of Rolled Products, name of the Company & production unit and place, Coil No, Grade, Size (Thickness X Width) in mm, Net Weight (in kgs), Signature of the inspecting authority, Date of Packaging, No. of sub-stacks and total no. of sheets per packet (for Rolled sheets only) is displayed on the product label.

**9.3 Is there any case filed by any stakeholder against the company regarding unfair trade practices, irresponsible advertising and/or anti-competitive behaviour during the last five years and pending as on end of financial year. If so, provide details thereof.**

No.

There is no litigation by any stakeholder against the company regarding unfair trade practices, irresponsible advertising and/or anti-competitive behavior during the last five years.

**9.4 Did your company carry out any consumer survey/ consumer satisfaction trends?**

Yes.

Capturing the perception of customers and consumers on our products and associated service, is given top priority in our organization. Our Quality Policy profess meeting the needs and expectations of the customer and consistently improving our system and work ethos as the chosen path for achieving excellence in business. We collect feed back about our product and service both from formal and informal channels and constantly work on it to enhance our brand image.

Customer satisfaction survey is conducted biannually every financial year for the two six-monthly periods ending September & March, in order to capture customers' perceptions over the period. The average customer satisfaction Index over the year computed based on response obtained from customers, is above the target. The trend observed in customer satisfaction index is taken as one of the basic indicator to assess our own performance in marketing front and is utilized to develop strategy for further market penetration.



## REPORT ON CONSERVATION OF ENERGY, TECHNOLOGY ABSORPTION AND FOREIGN EXCHANGE EARNINGS AND OUTGO.

### A. Conservation of Energy :

#### (i) The steps taken or impact on Conservation of Energy:

Your Company has always been assigning high importance to the energy conservation and has been utilizing the state-of-the-art technologies for maximizing energy efficiency across all its production units. Your Company is carrying out energy conservation measures through Small Group Activities (SGAs) by enhancing the energy efficiency in its different activities and processes.

Energy conservation measures adopted in different units are as under:

#### Bauxite Mines:

1. Replacement of 320 nos. of 70 W well glass HPSV fittings, 80 nos. of 250 W flood light HPSV lamps, 20 nos. of 250 W HPSV street light fixtures, 89 nos. of CFL lamps, 2,300 nos. of T8 tube light fitting (40 W) with corresponding LED equivalent has been done. A saving of electrical energy of approx. 2,90,000 KWh (=25 TOE) annually is being expected.
2. Replacement of 06 nos. of old (installed since 2000-2002) and inefficient air conditioners of 1.5 TR capacity with latest BEE 5-Star rated air conditioners (with R410 A environmental friendly refrigerant). A saving of electrical energy approx. 2,250 KWh (=0.2 TOE) annually is being estimated.

#### Alumina Refinery:

1. Replacement of Dump steam control valve in boiler.
  2. Optimization of agitator speed in chemical process tanks by suitably downsizing the motor.
  3. Installation of VFD for 50 Nos. of pumps in Evaporation plant is being carried out. Initial infrastructure work has been completed valuing Rs.600 lakhs. VFD installation valued Rs.300 lakhs is balance and shall be completed in 2nd Qtr of 2017-18.
  4. Energy saving by Re-routing of pipe lines to achieve desired flow and pressure.
  5. Use of indirect steam heating in PPTR tanks instead of direct steam heating.
  6. Use of additive with coal firing is being done to achieve better combustion efficiency of coal. Successful trials have been carried out in all 05 boilers resulting with better boiler efficiency.
  7. Installation of Magnetic resonator in HFO line of Boiler no 4; it gives a saving of 6.1% of HFO. Qty saved in this year= 88 KL.
  8. Installation of Energy efficient pumps in ash slurry pump house and in place of existing SL Cyclone feed pumps.
  9. Use of separate hydro-test pump of 75 KW for hydro testing of boilers instead of using BFP of 1,130 KW during that time.
  10. 10 numbers of flood lights replaced with LED lights. 9,320 numbers of tube lights of 57 Watts with 18 Watts LED tubes.
- Total Energy saved in Alumina Refinery during 2016-17 vis-à-vis 2015-16 for equivalent production is 45,636.19 TOE.

#### Smelter Plant:

1. During the year the specific DC energy consumption in Smelter Plant has reduced to 13,448 KWHr/MT of Hot Metal, lower by 5KWHr/MT as compared to last year's figure of 13,453 KWHr/MT. This could be achieved by use ALPSYS Pot regulation system in all Pot Lines, reducing anodic problems, reducing wedge drop & stem beam drops, use of graphitized cathode blocks, slotted anodes and use of increased Anode stub hole and pin length in running pots. All these activities resulted in higher Current Efficiency, thereby reducing Specific DC Energy Consumption by 3,90,467 KWHr (33.57 TOE).
2. Energy conservation projects taken up at Smelter are:
  - a) Installation of two Energy Efficient Compressors: - 15,05,184 KWH (129.4 TOE).
  - b) Installation of Air-receiver in PTMs screw compressor: - 5,745 KWH (0.49 TOE).
  - c) Replacement of 20 nos. standard LT motors with high energy efficient IE-2 class motor:- 69,723 KWH (6 TOE).
  - d) Replacement of 24 nos. HPSV high bay lights with LED lamps: - 9,472 KWH (0.81 TOE).

All these contributed to total annual energy savings of 19,80,591 KWHr i.e. 170.27 TOE.



## Captive Power Plant:

- All six nos. of conventional fan motors of cooling Tower of Unit #6 were successfully replaced with energy efficient VFD controlled motors. This results in annual saving in energy consumption by 340 TOE.
- All the conventional Glass Reinforced Plastics blades of cooling Tower Fans of Unit #9 & #10 (Total of 12 nos. of fans) were replaced with Fibre Reinforced Plastics. This will result annual saving in energy consumption by 170 TOE.
- Total 9,65,492 KWH (983.02 TOE) of energy was saved during the year 2016-17 due to installation of energy efficient lighting system like LED street light fitting and LED tube lights, electronic tube light ballast, LED high bay fitting, LED well glass fitting etc.
- Rain water harvesting system consisting a pond (50,000 M<sup>3</sup> Capacity) & pump (2X250 M<sup>3</sup>/Hr capacity) was commissioned on 28th September 2016. This has helped to reduce the water drawl from river by 2,73,387M<sup>3</sup> during 2016-17.

## Energy conservation projects proposed or in progress during 2016-17

### Mines:

- Replacement of 400 nos. of 250 W HPSV street lights & 300 nos. of 150 W HPSV street lights has been planned & are in procurement stages. With completion of the same in 2017-18, a saving of electrical energy approx. 4,03,398 KWh (=35 TOE) annually is being expected.
- All the new lighting installations proposed in South Block for new haul road illumination & area illumination are based on LED technology which shall reduce the impact on energy drawl for new establishments.

### Alumina Refinery:

Replacement of the old vent steam control valve with new and improved design valve has been planned. Procurement action is in progress.

### CPP:

- Replacement of existing Air Pre heater (APH) in boiler of one unit with improved Air Pre heater (APH). This will improve heat transfer from flue gas to combustion air, thereby enhancing combustion efficiency and increase in waste heat recovery. There will be energy saving of 1,560 TOE annually.
- Replacement of one energy efficient screw compressor in place of old reciprocating compressor. This will save energy by 242 TOE per annum.
- Equipment wise energy consumption will be monitored by installing 600 nos. of energy meters. These energy meters will be integrated through an Energy Management System. The Energy Management System will help in identifying the higher energy consuming equipments and facilitating management decision for replacement of such equipments.

### Smelter:

- Intelligent flow control system for compressed air network.
- Replacement of TFL Tubes with LED Lamps.
- Installation of 2nd slot cutting machine in Rodding shop-2.
- Semi-automatic Firing control system for one no. of M&H furnace of Rolling plant.
- Modification of existing scrap melting furnace in Pot line.
- Sealing of Solid Metal Charging Doors of furnaces in Cast House-A

## (ii) Steps taken by the company for utilizing alternate sources of energy:

Your Company is operating following Wind & Solar Power Units:

- 50.4 MW Wind power plant at Gandikota, Andhra Pradesh.
- 47.6 MW Wind power plant at Ludarva, Rajasthan.
- 50.0 MW Wind power plant at Devikot, Rajasthan.
- 260 KWp Rooftop Solar Power plant at Corporate Office and NALCO Township.

During the year, your Company has generated 205.722 MU from wind power & 0.294 MU from Solar. In addition to above, one 50.4 MW Wind power plant at Jath, Sangli, Maharashtra is commissioned.

## (iii) The capital investment on energy conservation equipments

### Mines

- Procurement & replacement of conventional lamps/ luminaries with LED fittings: Rs.37.75 lakhs.



2. Procurement & replacement of air conditioners: Rs.2.2 lakhs.
3. Procurement of portable power analyzer for accurate monitoring & analysis of electrical energy draw: Rs. 4.7 lakhs.

#### Alumina Refinery

Total amount spent on Energy conservation measures in the year for Refinery is Rs.1,177 lakhs.

#### Smelter

1. Installation of 2 Energy Efficient Compressors- Rs 358.5 Lakhs.
2. Installation of Air-receiver in PTMs screw compressor-1.9 Lakhs.
3. Replacement of 20 nos. standard LT motors with high energy efficient IE-2 class motors-5.9 Lakhs.
4. Replacement of 24 nos. HPSV high bay lights with LED lamps- Rs 1.2 Lakhs.
5. Procurement & laying of graphitized Cathode Blocks in Pots-Rs 3,938 Lakhs.

#### CPP

1. Installation of variable frequency drive (VFD) at unit 6 cooling tower fans- Rs 39 Lakhs.
2. Replacement of FRP blade in place of GRP blade in unit -9 & 10 cooling tower fans- Rs 42 Lakhs.
3. Installation of energy efficient lighting system like LED light fitting, LED tube light- Rs. 27 Lakhs.

### B. Technology Absorption, Adaptation & Innovation:

Sl. No	Technology	Benefits thereof
1	150m <sup>3</sup> per batch Effluent Water Treatment Plant, with Emrion Nano Technology of Eesavyasa Technology Pvt. Ltd., 1st of its kind in the world was commissioned at Smelter Plant and is in operation.	This breakthrough technology based on EMRION process has major advantages over the conventional process such as; <ul style="list-style-type: none"> <li>- 95% recovery of water without any hazardous waste.</li> <li>- Zero use of chemicals and</li> <li>- Zero liquid discharge (ZLD) plant.</li> <li>- Bring down fluoride content to below 2 ppm from as high as 30 ppm exceeding the Environmental norms.</li> </ul>
2	PTMs of PL-1,2,3,4-Additional interlocks using weigh scale under load/over load protection introduced	Reduction in mal-functioning and rope slackness of hoist in PTM.
3	Up gradation of Obsolete PLC Processor system to Control logic based processor system for Overhead Conveyor application (PLC I2) in Rodding Shop-1.	Reduction in breakdown time.
4	Up gradation of Obsolete PLC Processor system to Control logic based processor system for proportioning application (PLC B) in GAP-1.	Reduction in breakdown time.

#### DETAILS OF TECHNOLOGY IMPORTED /UPGRADED DURING LAST 5 YEARS:

Technology Imported/Upgraded	Year of import/ upgraded	Has technology been fully absorbed	If not fully absorbed, areas where this has not taken place, reasons therefore and future plans of action.
Fume treatment Center in Anode Baking Furnace-2 for meeting the environmental norms.	2012-13	YES	-
Successful operation of potlines with slotted anodes for reduction of DC Energy consumption.	2012-13	NO	Complete absorption of technology will take place after commissioning of 2nd slot cutting machine which is being procured.
RTDAS (Real Time Data acquisition system) for CH (B) stacks, FTP 7 & 8 stacks for continuous uploading data to the server of OSPCB through GPRS service.	2013-14	YES	-
Online ambient air quality monitoring station at Township commissioned for continuous uploading data to the server of OSPCB through GPRS service.	2013-14	YES	-



New bath by pass system in bath handling system of rodding shop 2 of carbon plant.	2013-14	YES	-
Aluminium Billet casting facility equipped to cast 8", 9" and 10" Billets.	2013-14	YES	-
Anode stub hole depth increased for reduction of DC Energy consumption.	2013-14	YES	-
Introduction of automatic bath breaking m/c in Rodding Shop-I.	2013-14	YES	-
Six numbers online particulate matter (PM) analysers installed & commissioned in FTPs of Potlines.	2014-15	YES	-
Three numbers online ambient air quality monitoring stations commissioned inside Smelter plant.	2014-15	YES	-
Online effluent monitoring station commissioned at the outlet of effluent treatment plant.	2014-15	YES	-
Automated Alumina mixing system for crushed bath plant at rodding shop-I.	2014-15	YES	-
C.P.Coke blending system installed in GAP I.	2014-15	YES	-
RTDAS (Real Time Data acquisition system) for FTP 1-6 stacks, Bake-oven Stacks, 3 Nos. new ambient air monitoring stations and effluent monitoring station for continuous uploading of monitoring data to the server of OSPCB through GPRS service.	2015-16	YES	-
Installation of Fume Treatment Center in Anode Baking Furnace -I.	2015-16	YES	-
Commissioning of Fume Treatment Center in Anode Baking Furnace -I.	2016-17	YES	-
Centralized SCADA system commissioned at FTP-5 to monitor the status of 10-different plants (FTP 5 to 8, Silo 5 to 8, HDPS-1&2).	2016-17	YES	-
The SCADA & HMI system of Billet casting Machine upgraded from industrial key pad based workstation to latest touch screen based workstation.	2016-17	YES	-
New product, CH-90 grade Billet (High Speed Extrusion Billet) developed and commercialized.	2016-17	YES	-
Smelter effluent water treatment plant based on EMRION Nano technology was set up.	2016-17	YES	-
CP Coke blending system installed in GAP-II.	2016-17	YES	-

### Expenditure on R&D

(Rs. in lakhs)

Nature	2016-17	2015-16
Capital	2,772	150
Revenue	1,980	1,425
Total	4,752	1,575
R&D Expenditure as % of gross turnover	0.60	0.22

- C. The foreign exchange earnings for the year 2016-17 is Rs.3,277.32 crores as against Rs. 3008.18 crores in 2015-16. The foreign exchange outgo for the year under report was Rs.288.80 crores as against Rs. 205.41 crores in the previous year.







## CORPORATE GOVERNANCE REPORT

### Philosophy on code of governance

Corporate Governance is the framework of rules and practices by which the Board of Directors ensures accountability, fairness and transparency in a Company's relationship with its all stakeholders viz. the financiers, customers, management, employees, government and the community at large. It is a process to operate an organisation in a systematic manner to meet its ethical, legal and business expectations and also to fulfill its responsibilities towards the society.

NALCO always endeavors to adhere good corporate practices and emphasizes on the commitment to value and ethical business conduct. The effort on the part of NALCO is not only to win the trust of the stakeholders but to retain the same on a sustainable manner. In fact, corporate governance is used as a tool to win such trust and goodwill of the stakeholders and command respect from the society.

Corporate Governance standards for listed Companies are regulated under the SEBI (Listing Obligations & Disclosure Requirements), Regulations, 2015. Besides being a Government Company, NALCO is also mandatorily following the guidelines on Corporate Governance for CPSEs prescribed by Department of Public Enterprise (DPE).

#### I. Board of directors

The Board formulates policies, strategies and review performance periodically to manage the Company. A professional Board with optimum combination of Executive and Non-executive Directors brings in healthy practice of deliberation in the Board room and systematise the decision making process. The Board also gives direction and exercise appropriate control to ensure that the Company meets stakeholders' aspiration and societal expectation.

##### (a) Composition of the Board

In terms of Regulation 17(1)(a) of the SEBI (LODR) Regulations, 2015, there should be at least one woman director on the Board and one half of the Board should comprise Non-executive Directors.

Further, in terms of Regulation 17(1)(b) of the said Regulations, if there is no regular non-executive chairperson, at least half of the Board should comprise Independent Directors.

The composition of the Board as on 31st March, 2017 is as follows:

- i. Five full time (Executive) Directors including Chairman-cum-Managing Director.
- ii. Two Part-time Official Directors.
- iii. Six Part-time Non-official (Independent) Directors.

The above composition meets requirement under Regulation 17(1)(a) of LODR Regulations but does not meet requirement under Regulation 17(1)(b) of LODR Regulations, since number of Independent Directors six against the requirement of seven.

##### (b) The details of vacancies in the position of Independent Directors from time to time during the year under report is as follows:

- i. There were five Independent Directors at the beginning of the financial year as against the requirement of 8 resulting in short fall by three nos.
- ii. One Part-time Official Director ceased to hold office w.e.f. 03.01.2017 thereby reducing the shortage of Independent Directors to two.
- iii. One Part-time Non-official (Independent) Director was appointed on 03.02.2017 thereby reducing the vacancy further to one.
- iv. One Part-time Official Director ceased to hold office w.e.f. 01.03.2017 and correspondingly the requirement of Independent Director was reduced to Nil. However, appointment of one Part-time Official Director w.e.f. 15.03.2017 created one vacancy of Independent Director w.e.f 15.03.2017.

##### (c) Attendance and Directorship held

As mandated by the SEBI (LODR) Regulations, 2015, none of the Directors are members of more than ten Board level committees or chairman of more than five committees in which they are members. Further, none of the directors serve as Independent Director in more than seven listed companies or where they are whole-time directors in any listed Company then they do not serve as independent director in more than three listed companies.



The details of the directors on the Board, their attendance at Board meetings and at the last Annual General Meeting and also the number of directorship and committee membership held in other companies as on 31st March, 2017, is given below:

**i. Executive (Whole-time) Directors**

Name, Designation & DIN	Board Meetings		Attendance at 35th AGM held on 30.09.2016	No. of other directorships	Membership in the Committees of other Companies	
	Held during the tenure	Attended			Membership	Chairmanship
Dr. T. K. Chand, CMD 01710900	8	8	Y	01	Nil	Nil
Shri N.R. Mohanty, Director - (P&T) 05181575 (upto 31.01.2017)	6	6	Y	Nil	Nil	Nil
Shri S. C. Padhy, Director - (HR) 02594088 (upto 30.06.2016)	2	0	NA	Nil	Nil	Nil
Shri K.C. Samal, Director (Finance) 03618709	8	8	Y	Nil	Nil	Nil
Ms. Soma Mondal, Director (Commercial) 06845389 (upto 28.02.2017)	6	5	Y	Nil	Nil	Nil
Shri V. Balasubramanyam, Director (Production) 06965313	8	8	Y	Nil	Nil	Nil
Shri Basant Kumar Thakur, Director(HR) 02845138 (w.e.f. 04.07.2016)	6	6	Y	Nil	Nil	Nil
Shri Sanjib Kumar Roy, Director (P&T) 06756812 (w.e.f. 03.02.2017)	2	2	NA	Nil	Nil	Nil

**ii. Part-time Official Directors (Non-independent)**

Shri R. Sridharan, IAS 05332433 (upto 03.01.2017)	5	4	No	Nil	Nil	Nil
Shri N. B. Dhal, IAS 01710101 (upto 20.10.2016)	4	4	No	1	Nil	Nil
Shri Subhash Chandra 07612049 (w.e.f. 20.10.2016)	4	4	NA	2	Nil	Nil
Dr. N. K. Singh 03361541 (w.e.f. 15.03.2017)	Nil	Nil	NA	3	1	Nil



### iii. Part-time Non-official (Independent) Directors

Name, Designation & DIN	Board Meetings		Attendance at 35 <sup>th</sup> AGM held on 30.09.2016	No. of other directorships	Membership in the Committees of other Companies	
	Held during the tenure	Attended			Membership	Chairmanship
Shri Dipankar Mahanta 01583516 (w.e.f. 21.11.2015)	8	8	Y	Nil	Nil	Nil
Shri S. Sankararaman 07346454 (w.e.f. 21.11.2015)	8	7	Y	Nil	Nil	Nil
Shri P. K. Nayak 07346756 (w.e.f. 21.11.2015)	8	7	Y	Nil	Nil	Nil
Prof. Damodar Acharya 06817842 (w.e.f. 21.11.2015)	8	7	No	Nil	Nil	Nil
Shri Maheswar Sahu 00034051 (w.e.f. 21.11.2015)	8	1	No	4	1	1
Ms. Kiran Ghai Sinha 07726477 (w.e.f. 03.02.2017)	2	1	NA	Nil	Nil	Nil

- (d) Other directorships do not include directorships of private limited companies, foreign companies and Section 8 companies.
- (e) The Chairmanship/Membership of Board Committees include only Audit Committee and Stakeholders Relationship Committee.
- (f) None of the Directors are related to each other in the Company.
- (g) **Institutionalised decision making process**
- The Board is the apex body to oversee the overall functioning of the Company. It has constituted various committees depending upon statutory needs and business requirements.
  - The Company sincerely follow the Secretarial Standards issued by the Institute of Company Secretaries of India (ICSI) for convening the Board meetings and General meetings.
  - Meetings are convened with approval of CMD/Chairman of the Committee by giving at least 7 days' advance notice.
  - In case of business exigencies, the Board's approval is taken through circular resolutions.
  - Presentations are made to the Board/Committee covering Finance, Production, Operations, major Business Segments, Human Resources, Marketing, Joint Venture operations, whenever required.
  - The members of the Board/ Committee have complete access to all information of the Company and are also free to recommend inclusion of any matter in the agenda for discussion. Senior officials are called to provide additional inputs to the items being discussed by the Board/Committee, as and when required.
- (h) The Company places information as set out in Reg. 17 read with part A of Schedule II of the Listing Regulation, before the Board for their consideration.
- (i) Details of Board meetings and presence of directors in the meeting are as follows:

Board Meeting No. & Date	Board Strength	No. of Directors Present			
		Functional	Part-time non-executive	Independent	Total Attendance
291/25.05.2016	13	5	2	4	11
292/28.05.2016	13	5	2*	4	11
293/10.08.2016	13	6	2*	4	12



Board Meeting No. & Date	Board Strength	No. of Directors Present				Total Attendance
		Functional	Part-time non-executive	Independent		
294/12.09.2016	13	6	2#	4	12	
295/14.12.2016	13	6	1	4	11	
296/28.01.2017	12	6	1	4	11	
297/13.02.2017	13	5	1	5	11	
298/02.03.2017	12	5	1!	2	8	

\* One director attended the meeting through video conferencing.

# Both the directors attended the meeting through video conferencing.

! Attended the meeting through video conferencing.

- (j) The minimum time gap between any two Board meetings was 2 days and maximum time gap between any two Board meetings was 92 days. There was one instance during the year where the time gap between two Board meetings was more than 3 months which was not in compliance with the requirements under the DPE guidelines on corporate governance.
- (k) Necessary quorum was present for all the Board meetings held during the year.

## II. Non-Executive Directors

- (a) Part-time Official Directors and Part-time Non-official (Independent) Directors are the Non-executive Directors forming part of the Board.
- (b) Part-time Official Directors are the senior bureaucrats from the Administrative Ministry who are nominated to the Board by the Govt. of India. They hold office till further order from the Govt. of India.
- (c) Part-time Official Directors do not receive any remuneration from the Company. They are also not entitled for sitting fees for the meetings attended by them.
- (d) Part-time Non-official Directors are the Independent Directors who fulfill the conditions of independence specified under Section 149 of the Companies Act, 2013 and Regulations 16(b) of the SEBI LODR Regulations.
- (e) Being a Government Company, the Independent Directors are appointed by the President of India and the terms and conditions are fixed by the Administrative Ministry. Generally, Independent Directors are appointed for a tenure of 3 years which is in compliance with the Act.
- (f) On appointment, all the Independent Directors confirm that they meet the criteria of independence. A formal letter of appointment is issued to the Independent Directors on their appointment as Director on the Board. The letter inter-alia explains the role, function, duties and responsibilities as Director of the Company. Appointment of Independent Directors are posted in the Company's website [http://www.nalcoindia.com/investor/appt\\_letter.pdf](http://www.nalcoindia.com/investor/appt_letter.pdf).
- (g) The Company conducts an acclimatization programme for the Independent Directors on their appointment on the Board. The Company also nominates the Independent Directors to attend various familiarization programmes being conducted by ASSOCHAM, CII, SCOPE, DPE etc. in this regard. The details of the familiarization programmes attended by the Independent Directors are available in the following link <http://www.nalcoindia.com/investor/Familiarisation%20Programme%20for%20%20Directors.pdf>.
- (h) None of the Non-executive Directors hold any shares or convertible instruments in the Company.
- (i) Independent Directors are not entitled for stock option in the Company.

## III. Remuneration to directors

No remuneration is paid to the Non-executive Directors. The Independent Directors are only paid sitting fees for each meeting attended by them, as approved by the Board and within the statutory limit, prescribed under Companies Act, 2013. The Company also reimburses out-of-pocket expenses incurred by the Non-executive Directors for attending the meetings.

Details of sitting fees paid to the Independent Directors during 2016-17 are given below:

Name	Sitting Fees (₹)*		Total (₹)
	Board Meetings	Committee Meetings	
Shri Dipankar Mahanta	1,60,000	3,60,000	5,20,000
Shri S. Sankararaman	1,40,000	2,40,000	3,80,000
Shri P. K. Nayak	1,40,000	2,60,000	4,00,000



Name	Sitting Fees (₹)*		Total (₹)
	Board Meetings	Committee Meetings	
Shri Maheswar Sahu	20,000	1,80,000	2,00,000
Ms. Kiran Ghai Sinha (w.e.f. 03.02.2017)	20,000	-	20,000

\* subject to applicable tax.

- (b) No remuneration is paid to the Part-time Official Directors.
- (c) Whole-time Directors including the Chairman-cum-Managing Director (CMD) are paid remuneration by way of salary, benefits, perquisites and allowances in fixed components and Performance Related Payment (PRP) in variable components.
- (d) The remuneration paid to the Whole-time Directors including CMD is as per the guidelines prescribed by DPE for Schedule-A Company.
- (e) All functional directors are members of New Pension Scheme (NPS).
- (f) The Nomination and Remuneration Committee approves the PRP payable to the CMD and other Whole-time Directors out of the profits for the financial year, in terms of the guidelines prescribed by DPE.
- (g) As per notification dt. 5<sup>th</sup> June, 2015 of Ministry of Corporate Affairs (MCA), the provisions of the performance evaluation shall not apply in case the directors are evaluated by the Ministry or department of the Central Government which is administratively in charge of the Company. The performance of the Board is evaluated during the performance evaluation of the MoU signed with the Administrative Ministry.
- (h) The terms of appointment of directors does not contain any provision for payment of severance fees.
- (i) The Company has not issued any stock options during 2016-17.

Details of remuneration of the Whole-time Directors paid during the financial year 2016-17 are as follows:

Name	Relationship with other Directors	Remuneration for the year 2016-17 (₹)		Total
		All elements of remuneration package, i.e. Salary, PF contribution, Pension, Gratuity etc.	Other benefits	
Dr. Tapan Kumar Chand, CMD	No	45,42,071	18,000	45,60,071
Shri K.C. Samal, Director (Finance)	No	40,79,548	26,675	41,06,223
Shri V. Balasubramanyam, Director (Production)	No	36,13,432	2,33,677	38,47,109
Shri Basant Kumar Thakur, Director (Human Resources) (w.e.f. 04.07.2016)	No	23,44,982	68,945	24,13,927
Shri Sanjib Kumar Roy, Director (Projects & Technical) (w.e.f. 03.02.2017)	No	5,42,513	3,000	5,45,513
Shri S.C. Padhy, Director (Human Resources) (upto 30.06.2016)	No	32,32,875	1,43,795	33,76,670
Shri N.R. Mohanty, Director (Projects & Technical) (upto 31.01.2017)	No	54,65,453	1,66,881	56,32,334
Ms. Somal Mondal, Director (Commercial) (upto 28.02.2017)	No	40,86,493	4,03,095	44,89,588



#### IV. Various Committees of the Board

- Various committees have been constituted keeping in view both the requirements under the statutes and smooth functioning of the Company.
- While statutory committees fulfill the requirements relating to the composition, non-statutory committees comprises judicious mix of executive and non-executive directors.
- Secretarial Standards relating to Board meeting are equally applicable to committee meetings.
- The terms of reference of the Committees are approved by the Board.

#### A. Audit Committee

- i) The composition of the Audit Committee as on 31.03.2017 was as follows :

Name	Category	Position
Shri P K Nayak	Non-executive Independent	Chairman
Shri Dipankar Mahanta	Non-executive Independent	Member
Shri S Sankararaman	Non-executive Independent	Member
Prof. Damodar Acharya	Non-executive Independent	Member
Director (P&T)	Executive Non-Independent	Member
Director (Production)	Executive Non-Independent	Member

Besides, Director (Finance) is always an invitee to the Committee.

#### Meetings and Attendance

Six meetings of the Audit Committee were held during the year on 21.04.2016, 28.05.2016, 30.07.2016, 12.09.2016, 14.12.2016 and 13.02.2017. The maximum gap between any two Audit Committee meetings was 92 days.

- (a) The composition of the Audit Committee and details of the meetings attended by its members are given below:

Member of Audit Committee	Meetings held	Meetings attended
Shri P. K. Nayak	6	6
Shri D. Mahanta	6	6
Dr. S. Sankararaman	6	5
Prof. D. Acharya	6	6
Shri V. Balasubramanyam	6	6
Shri Sanjib Kumar Roy (w.e.f. 03.02.2017)	1	1
Shri N. R. Mohanty (upto 31.01.2017)	5	5

- ii) The Audit Committee invites such of the executives, as it considers appropriate particularly the head of Internal Audit, representatives of Statutory Auditors and Cost Auditors to be present in the meetings. The Company Secretary acts as Secretary to the Audit Committee.
- iii) The terms of reference of the Audit Committee are broadly as follows:

#### Powers of the Audit Committee

- To investigate any activity within its terms of reference
- To seek information from any employee
- To obtain outside legal or other professional advice
- To secure attendance of outsiders with relevant expertise, if it considers necessary

Role of the Audit Committee inter-alia, includes the following:

- Oversight of the Company's financial reporting process and the disclosure of its financial information to ensure that the financial statement is correct, sufficient and credible.
- Recommending to the Board, the appointment, reappointment and, if required, the replacement or removal of cost auditors, fixation of audit fees and other terms of appointment.



- Approving payment to statutory auditors, including cost auditors for any other services rendered by them.
- Reviewing with the management, annual financial statements and auditors report thereon before submission to the Board for approval, with particular reference to:
  - Matters required to be included in the Directors' Responsibility Statement to be included in the Directors' Report in terms of Section 134(5) of the Companies Act, 2013
  - Changes, if any, in accounting policies and practices and reasons for the same
  - Major accounting entries involving estimates based on the exercise of judgment by the management
  - Significant adjustments made in financial statements arising out of audit findings
  - Compliance with listing and other legal requirements relating to financial statements
  - Disclosure of related party transactions
  - Qualifications in draft audit report
- Reviewing with the management, the quarterly and annual financial statements before submission to the Board for approval.
- Reviewing with the management, the statement of uses/application of funds raised through an issue (public issue, rights issue, preferential issue, etc.), the statement of funds utilized for purposes other than those stated in the offer document/prospectus/notice and the report submitted by the monitoring agency monitoring the utilization of proceeds of a public or rights issue and making appropriate recommendations to the Board to take up steps in this matter.
- Reviewing and monitoring the auditors' independence and performance and effectiveness of audit process.
- Approval or any subsequent modification of transactions of the Company with related parties.
- Scrutiny of inter-corporate loans and investments, if any.
- Valuation of undertakings or assets of the Company, wherever it is necessary.
- Evaluation of internal financial controls and risk management systems.
- Reviewing with the management, the performance of statutory auditors, including cost auditors and internal auditors, adequacy of internal control systems.
- Reviewing the adequacy of internal audit function, if any, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure, coverage and frequency of internal audit.
- Discussion with internal auditors of any significant findings and follow-up thereon.
- Reviewing the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the Board.
- Discussion with statutory auditors, before the audit commences, about the nature and scope of audit as well as post audit discussion to ascertain any area of concern.
- To look into the reasons for substantial defaults, if any, in the payment to depositors, debenture holders, shareholders (in case of non-payment of declared dividends) and creditors.
- To review the functioning of the Whistle Blower mechanism.
- Carrying out such other functions as may be specifically referred to the Committee by the Company's Board of Directors and/or other Committees of Directors.

**Mandatory review of the following information by Audit Committee:**

- The Management Discussion and Analysis of financial condition and results of operations;
  - Statement of significant related party transactions, submitted by management;
  - Management letters/letters of internal control weaknesses issued by the statutory auditors;
  - Internal audit reports relating to internal control weaknesses; and
  - The appointment, removal and terms of remuneration of the internal auditors / chief internal auditor.
- **Statement of deviation :**
- a) Quarterly statement of deviation(s) including report of monitoring agency, if applicable submitted to Stock Exchanges in terms of regulation 32(1).
  - b) Annual statement of funds utilized for purposes other than those stated in the offer document/prospectus/notice in terms of regulation 32(7).



**The functions of Audit Committee also include;**

- To check whether cost controls are adequate and commensurate with size of the operations.
- To study the areas where income can be increased and the areas where cost can be reduced.
- Management Information System on each of the above areas and give its recommendations to the Board.

**B. Nomination and Remuneration Committee**

Being a Government Company, certain provisions viz. annual evaluation of the Board and of the individual directors, formulation of policy for determining qualification, positive attitudes, independence of directors and recommendation to the Board a policy for remuneration of Directors are exempted from the scope of the Nomination and Remuneration Committee.

The committee comprises the following members as on 31<sup>st</sup> March, 2017:

Name	Category	Position
Shri Maheswar Sahu	Non-executive Independent	Chairman
Shri S. Sankararaman	Non-executive Independent	Member
Shri P. K. Nayak	Non-executive Independent	Member
Prof. Damodar Acharya	Non-executive Independent	Member
Ms. Kiran Ghai Sinha (w.e.f. 03.02.2017)	Non-executive Independent	Member

Besides, Director (HR) and Director (Finance) are the invitees to the Committee.

One meeting took place on 30.07.2016.

**C. Stakeholders Relationship Committee**

- The primary function of the Stakeholders Relationship Committee is to address investors' grievances pertaining to transfer/transmission of shares, non-receipt of Annual Report, non-receipt of dividends and other related matters as prescribed under Section 178 of the Companies Act, 2013 and Reg.20 of the SEBI Listing Regulations.
- M/s. Karvy Computershare Private Ltd. has been appointed as Registrar and Share Transfer agent to attend to all grievances of the shareholders received either directly or through SEBI, Stock Exchanges etc. Efforts are made to ensure that the grievances are redressed to the satisfaction of the investors at the earliest possible time.
- The committee comprises the following members as on 31<sup>st</sup> March, 2017:

Name	Category	Position
Shri S. Sankararaman	Non-executive Independent	Chairman
Shri Dipankar Mahanta	Non-executive Independent	Member
Shri P. K. Nayak	Non-executive Independent	Member
Ms. Kiran Ghai Sinha (w.e.f. 03.02.2017)	Non-executive Independent	Member
Director (HR)	Executive Non-Independent	Member
Director (Commercial)	Executive Non-Independent	Member

- The Committee met 3 times on 12.09.2016, 13.12.2016 and 28.01.2017 during the year.
- The Company Secretary is the Secretary to the Committee.
- Details of complaints received and redressed during the year 2016-17 are as follows:

	Opening Balance	Received during the year	Resolved during the year	Closing Balance
SEBI	Nil	4	4	Nil
Stock Exchange	Nil	2	2	Nil
Individual	Nil	295	295	Nil





- vii) Break-up of different types of complaints received and resolved to the satisfaction of investors are given below:

Types of complaints	No. of complaints
Transfer of shares (Non-receipt of split & bonus share certificate)	0
Non receipt of securities	12
Non receipt of dividend	270
Non receipt of Annual Report	19
<b>TOTAL</b>	<b>301</b>

#### D. Risk Management Committee

- i) The Risk Management Committee was constituted in terms of regulation 21 of SEBI Listing Regulations. The terms of reference of the committee is as follows:
- Assisting the Board of Directors in overseeing the responsibilities with regard to the identification, evaluation and mitigation of operational, strategic and external environment risks.
  - Overall responsibility for monitoring and approving the risk policies and associated practices of the Company.
  - Reviewing and approving risk disclosure statements in any public documents or disclosures.
- ii) The committee comprises the following members as on 31st March, 2017:

Name	Category	Position
Prof. Damodar Acharya	Non-executive Independent	Chairman
Shri S. Sankararaman	Non-executive Independent	Member
Ms. Kiran Ghai Sinha (w.e.f. 13.02.2017)	Non-executive Independent	Member
Director (Finance)	Executive Non-Independent	Member
Director(Production)	Executive Non-Independent	Member
Director (Commercial)	Executive Non-Independent	Member

The Committee met once on 28.01.2017 during the year.

#### E. CSR & Sustainability Development Committee

- i) Section 135 of the Companies Act, 2013 mandates constitution of Corporate Social Responsibility Committee. Regulation 34(2)(f) of the SEBI (LODR) Regulations mandates for Business Responsibility Report by Companies describing the initiatives taken by them from environmental, social and governance perspective.
- The Company has constituted a CSR & Sustainability Development Committee to look into matters related to CSR activities and sustainability development programmes of the Company.
- ii) The terms of reference of the committee is as follows:
- a. Overseeing peripheral development activities being under taken by the Company through the respective Rehabilitation and Periphery Development Advisory Committees (RPDAC) and proposed to be taken under MMDR Act.
  - b. Nalco Foundation.
  - c. Environment Protection & Pollution controls.
- iii) The committee comprises the following members as on 31st March, 2017:

Name	Category	Position
Shri D. Mahanta	Non-executive Independent	Chairman
Shri S. Sankararaman	Non-executive Independent	Member
Shri Maheswar Sahu	Non-executive Independent	Member
Ms. Kiran Ghai Sinha (w.e.f. 03.02.2017)	Non-executive Independent	Member
Director (Finance)	Executive Non-Independent	Member
Director (Production)	Executive Non-Independent	Member
Director (HR)	Executive Non-Independent	Member

- iv) The Committee met twice on 30.07.2016 and 18.10.2016 during the year.



## F. Technology Committee

- i) Technology Committee was constituted in compliance with the requirements under the DPE guidelines.
- ii) The Committee monitors and pays special attention to the assessment of the Company's efforts to develop technology and acquiring and assimilating new technologies necessary to make it competitive and to its own R&D efforts for maintaining a sustained strength in the technological field and review specific consumption norms pertaining to Smelter, Refinery etc.
- iii) The Committee comprises the following members as on 31st March, 2017:

Name	Category	Position
Prof. D. Acharya	Non-executive Independent	Chairman
Shri Maheswar Sahu	Non-executive Independent	Member
Director (Finance)	Executive Non-Independent	Member
Director (Production)	Executive Non-Independent	Member
Director (P&T)	Executive Non-Independent	Member
Director (Commercial)	Executive Non-Independent	Member

- iv) The Committee met twice on 22.04.2016 and 18.10.2016 during the year

## G. Human Resources Committee

- i) The terms of reference of the HR committee is to study and recommend to the Board for approval, proposals in the following areas:
  - a. Framing of rules and regulations and changes therein relating to recruitment, transfer, promotion, deputation and other conditions of service in respect of below Board level employees.
  - b. Wage structure and scales of pay of the non-executives and any changes therein.
  - c. Organization chart including manpower planning.
  - d. Any other reference made by the Board from time to time.
- ii) The Committee comprises of the following members as on 31st March, 2017:

Name	Category	Position
Shri Maheswar Sahu	Non-executive Independent	Chairman
Shri D. Mahanta	Non-executive Independent	Member
Ms. Kiran Ghai Sinha (w.e.f. 03.02.2017)	Non-executive Independent	Member
Director (Finance)	Executive Non-Independent	Member
Director (HR)	Executive Non-Independent	Member
Director (P&T)	Executive Non-Independent	Member

- iii) The Committee met three times on 30.07.2016, 18.10.2016 and 13.12.2016 during the year.

## H. Ethics & Corporate Governance Committee

- i) The terms of reference of the Committee include:
  - i) Practices of Corporate Governance at all levels and to suggest remedial measures wherever necessary.
  - ii) Provision of correct inputs to the media so as to preserve and protect the Company's image and standing.
  - iii) Dissemination of factually correct information to the investors, institutions and public at large.
  - iv) Interaction with existing and prospective FIs and rating agencies, etc.
  - v) Establishing oversight on important corporate communication on behalf of the Company with the assistance of consultants / advisors, if necessary.
  - vi) Institution of standardized channels of internal communications across the Company to facilitate a high level of disciplined participation.
  - vii) Compliance of the following, formulated in terms of SEBI & DPE guidelines:
    - a) Code of Conduct for Senior Management
    - b) Insider Trading Regulations
    - c) Related Party Transactions
    - d) Vigilance Related issues
    - e) Whistle Blower Policy



- II) The Committee comprises the following members as on 31st March, 2017:

Name	Category	Position
Shri Dipankar Mahanta	Non-executive Independent	Chairman
Shri P. K. Nayak	Non-executive Independent	Member
Ms. Kiran Ghai Sinha (w.e.f. 03.02.2017)	Non-executive Independent	Member
Director (HR)	Executive Non-Independent	Member
Director (P&T)	Executive Non-Independent	Member
Director (Commercial)	Executive Non-Independent	Member

- III) The Committee met twice on 30.07.2016 and 28.01.2017 during the year.

#### I. Committee of Directors for Projects and New Ventures

- i. A Committee of Directors for Projects and New Ventures was constituted with following terms of reference to examine and make recommendation to the Board on new projects/capital expenditure on Joint Ventures:
- Appraisal and approval of the procedures and formalities in respect of various stages of new projects including preparation of DPR.
  - To study and recommend to the Board, proposals for investment in new projects, in India and abroad, exceeding Rs.10 crore each.
  - Review the status of capital projects, costing over Rs. 100 crore each.
- ii. The Committee comprises the following members as on 31st March, 2017:

Name	Category	Position
Dr. Tapan Kumar Chand	Executive Chairman	Chairman
Shri P. K. Nayak	Non-executive Independent	Member
Prof. D. Acharya	Non-executive Independent	Member
Shri M. Sahu	Non-executive Independent	Member
Shri Subhash Chandra	Non-Executive Non Independent	Member
Director (Finance)	Executive Non-Independent	Member
Director (Production)	Executive Non-Independent	Member
Director (HR)	Executive Non-Independent	Member
Director (P&T)	Executive Non-Independent	Member

- iii. No meeting took place during the year.

#### J. Other Committees

- i) The Board has constituted the following Committees with only functional directors to take care of certain regular activities with the terms of reference approved by the Board. Those Committees are:
- Investment Committee
  - Committee of Directors for Sales
  - Committee of Directors for Procurements
  - Share Transfer Committee
- ii) To ensure smooth process of transfer/transmission and dematerialization of shares, Company Secretary has been authorized by the Board to approve all such requests/cases. However, cases pertaining to issue of new share certificates in case of torn/mutilated/defaced/lost/rematerialisation are approved by the Share Transfer Committee.
- iii) The Share Transfer Committee met twice on 22.12.2016 and 25.01.2017 during the year.

#### K. Meeting of Independent Directors

As per the provisions under the Companies Act, 2013, regulation 25(4) of SEBI listing regulations and guidelines issued by DPE on role and responsibilities of Independent Directors of CPSEs, at least one meeting of the Independent Directors should be held in a year without presence of the functional Directors or management personnel, with following terms of reference:



- (a) review the performance of Non-Independent Directors and the Board of Directors as a whole;
- (b) review the performance of the Chairperson of the estate entity, taking into account the views of executive directors and non-executive directors;
- (c) assess the quality, quantity and timeliness of flow of information between the management of the listed entity and the Board of Directors that is necessary for the Board of Directors to effectively and reasonably perform their duties.

Being a Govt. Company, the terms of reference at (a) & (b) above for the Independent Directors meeting are exempted vide MCA Circular dated 05-06-2015. DPE vide OM dt. 20.06.2013 has also withdrawn from the scope of the meeting of Independent Directors, the provisions relating to review of the performance of functional and Government Directors and the Board as a whole and review of the chairperson, taking into account the views of all Directors.

- (d) The Committee met once on 18.10.2016 during the financial year.

## V. General Body Meetings

### i) Details of last three Annual General Meetings held :

Financial Year	AGM Date	Time	Dividend Payment Date	Special Resolution, if any	Venue
2013-14	27.09.2014	11.00AM	15.10.2014	No	NALCO Bhawan, P/1, Nayapalli Bhubaneswar-751 013
2014-15	26.09.2015	11.00AM	19.10.2015	No	
2015-16	30.09.2016	11.00AM	25.10.2016	No	

### ii) Annual General Meeting for the financial year 2016-17.

Day and Date	Saturday, 23 <sup>rd</sup> September, 2017
Time	11.00 A.M.
Venue	NALCO Bhawan, P/1, Nayapalli, Bhubaneswar-751 013

### iii) Resolution passed through Postal Ballot

Resolution requiring approval of shareholders for buyback of shares was passed through postal ballot on 14th July, 2016. In accordance with Reg.44 of the SEBI LODR Regulations, e-voting facility was provided to the shareholders, in respect of shareholders' resolutions passed at the AGM held on 30.09.2016. The members who could not exercise their vote through e-voting process were provided facility to vote at the Annual General Meeting by way of polling instead of voting by show of hands.

## VI. Means of Communication.

- i) The Company communicates with its shareholders through its Annual Report, General Meetings and disclosures through its Website.
- ii) The Company also communicates with its institutional shareholders through a combination of analysts briefing and individual discussions and also participation in investor conferences from time to time. The presentation made to Institutional Investors/ Analyst are sent to the Stock Exchanges beforehand and uploaded on Company's website: [www.nalcoindia.com](http://www.nalcoindia.com). Information, latest updates and announcements regarding the Company can also be accessed at Company's website: [www.nalcoindia.com](http://www.nalcoindia.com).
- iii) The Quarterly, Half yearly and Annual Results of the Company are published in leading newspapers in India. The results are displayed on the Company's website [www.nalcoindia.com](http://www.nalcoindia.com). The results are also uploaded electronically on NEAPS of NSE and Listing Centre of BSE.
- iv) As a measure of green initiative and to save the environment, the Company has sent the Annual Reports for the financial year 2015-16 and other communications like ECS credit information for interim and final dividend to large number of shareholders through e-mail of the shareholders registered with NSDL/CDSL after seeking their consent for the same. The Annual Report of the Company is also available on the website in a user-friendly and downloadable form.
- v) Printed copy of the Chairman's Speech is distributed to the shareholders at the Annual General Meetings. The same is also placed on the website of the Company.
- vi) Reminders for unclaimed/unpaid dividend are sent by post to the shareholders to their last known address as per records every year. Besides, e-mail communication of such reminder is also sent to those shareholders whose e-mail ids are available in the record. The list of unpaid/unclaimed dividend, year-wise is also available in the 'Investor Services' page in the Company's website.



## VII. Disclosure

### (a) Related Party Transactions

As per Section 188 of the Companies Act, 2013, certain contract/ arrangement with related party requires approval of the Board of Directors. Further, if these transactions cross the limit prescribed under the Rules, the approval of shareholder through special resolution is required.

Further, under Regulation 23 of SEBI LODR, all related party transactions require approval of the Audit Committee. The Company has formulated a Policy on Related Party Transactions. The Policy is available at the weblink:

<http://www.nalcoindia.com/download/NEW-RPT-NALCO.pdf>

Related party transactions were disclosed in note no.43 of both standalone financial statements and consolidated financial statements of the Company for the financial year 2016-17. There were no material transactions with any related party during the financial year. The details of related party transactions are also given in Form AOC -2 forming part of Board's report.

### (b) CEO/CFO Certification

As required under Regulation 17(8) of SEBI LODR, the certificate duly signed by Dr. Tapan Kumar Chand, Chairman & Managing Director and Shri K. C. Samal, Director (Finance) was placed before the Board of Directors at the meeting held on 27.05.2017.

### (c) Code of Conduct

In terms of Reg. 17(5) of the SEBI LODR and in line with requirements under the DPE guidelines on corporate governance, the company has adopted a Model Code of Business Conduct and Ethics ('the Code'). This Code is applicable to all the Board Members including Government Nominee(s) & the Independent Director(s) and the Senior Management (one level below the Board of Directors) of the Company.

All the Members of the Board and Senior Management Personnel are required to affirm the code on annual basis. The Code is available in Company's website in the following link:

<http://www.nalcoindia.com/CodeofConduct.pdf>

### (d) Declaration by the Chairman-cum-Managing Director as required under Schedule V of SEBI LODR

#### DECLARATION

All the members of the Board and Senior Management Personnel have affirmed compliance of the Code of Conduct for the financial year ended on March 31, 2017.

(Dr. T. K. Chand)  
Chairman-cum-Managing Director

### (e) As per DPE guidelines

- No expenditure has been debited in the books of accounts not related to business.
- No expenditure is incurred which are personal in nature and incurred for the Board of Directors and top management.
- Details of administrative expenditure and office expenses as a percentage of total expenses vis-à-vis financial expenses and reasons for increase are as follows:

(₹ in Crore)

Particulars	2016-17	2015-16
Administrative and office expenses	97.74	74.55
Total expenses	7453.42	6739.16
Administrative and office expenses as a % of total expenses	1.31	1.11
Financial expenses	2.69	3.27

Note: Previous year expenditures are re-casted due to adoption of Ind AS.

- Increase in administrative expenditure is primarily attributable to increase in expenditure on account of legal and constructive obligation due to implementation of Ind AS and in increase in demurrage expenditure.

### (f) Whistle Blower Policy

Pursuant to the provisions under the Companies Act, 2013 and Regulation 22 of the SEBI Listing Regulation, the Company has a Board approved 'Whistle Blower Policy' for directors and employees to report to the management concerns about unethical behavior, actual or suspected fraud or violation of the company's code of conduct or ethics policy. It also provides



safeguards against victimization of employees, who avail of the mechanism and for direct access to the Chairman of the Audit Committee.

No personnel of the company had been denied access to the Audit Committee.

The policy is available in Company's website in the following link:

[http://www.nalcoindia.com/Whistleblowerpolicy\\_nalco.pdf](http://www.nalcoindia.com/Whistleblowerpolicy_nalco.pdf)

## (g) Insider Trading Code

### (i) Code of Practices and Procedures for Fair Disclosure of Unpublished Price Sensitive Information, and

### (ii) Code of Conduct to regulate, monitor and report trading by its employees and other connected persons

Pursuant to Regulation 9(1) of SEBI (Prohibition of Insider Trading) Regulations, 2015, the Board has laid down Code of Practices and Procedures for Fair Disclosure of Unpublished Price Sensitive Information (UPSI). According to this code, Chief Investor Relation Officer shall ensure that the code of practices and procedures for disclosures of Unpublished Price Sensitive information are adopted and adhered to before issuance of any Press Release or during interactions with media, analysts and other investor relations conferences etc.

Further, no Insider, which includes connected persons, designated person or any person in possession of or having access to UPSI, shall either on its own behalf or on behalf of any other person, communicate any UPSI or trade in listed securities or proposed to be listed securities on any stock exchanges when in possession of any UPSI.

Insiders are entitled to formulate trading plan subject to certain conditions as enumerated in the Insider Trading Code and approval of the Compliance Officer. The trading plan is to be implemented mandatorily.

Designated Persons and their immediate relatives are not allowed to trade in securities when the Trading Window is closed. To deal in Securities beyond limits specified, permission of Compliance Officer is required. All Directors/ Designated Employees are also required to disclose related information periodically as defined in the Code.

Company Secretary has been designated as Compliance Officer for this Code.

The code is displayed on the Company's website at

[http://www.nalcoindia.com/download/NALCO\\_Code\\_of\\_Conduct\\_new.pdf](http://www.nalcoindia.com/download/NALCO_Code_of_Conduct_new.pdf).

## VIII. Auditors

M/s. ABP & Associates, Chartered Accountants and M/s. Guha Nandi & Co., Chartered Accountants are appointed as joint Statutory Auditors of the Company for the financial year 2016-17 by Comptroller & Auditor General of India (CAG).

External firms have been engaged as Internal Auditors to review internal controls and operating systems and procedures unit wise. One Executive Director level person has been designated as Chief of Internal Auditor to supervise the internal audit activities.

M/s. Tanmaya S Pradhan & Co., Cost Accountants have been appointed as Cost Auditors of the Company for the financial year 2016-17.

M/s. Saroj Ray & Associates, Company Secretaries have been appointed as Secretarial Auditors of the Company for the financial year 2016-17.

## IX. Compliance

- i) The company has complied with all requirements specified under the SEBI listing regulations except to the extent specified above. Compliance of certain provisions viz composition of the Board is beyond the control of the Company. The non-compliance on this front is reported to the Stock Exchanges on regular intervals while filing the quarterly reports on corporate governance.
- ii) There were no stricture or penalty imposed by either SEBI or the Stock Exchanges or any statutory authority for non-compliance of any matter related to the capital markets during last three years.
- iii) The Company is submitting quarterly self-appraisal reports on compliance of the guidelines on Corporate Governance prescribed by the Dept. of Public Enterprises. The Company is rated 'Excellent' as per the self-appraisal report for the financial year 2016-17.
- iv) The Company is not having any subsidiary as on date and hence the requirements relating to subsidiary is not applicable.

## X. Shareholder Information

### (i) Company Registration Details

– Corporate Identity Number (CIN)	: L27203OR1981GOI000920
– Date of Registration	: 7th January, 1981
– Location of the Company	: Registered office at NALCO Bhawan, P/1, Nayapalli, Bhubaneswar-751 013, Odisha.

**(ii) Financial Calendar for 2017-18:**

Events	Tentative Date
Unaudited Financial Results for the first three quarters	Within 45 days of closure of respective quarter
Audited Financial Results for the year including 4 <sup>th</sup> quarter results	Within 60 days from date of closure of the Financial Year.
Annual General Meeting for the year ending March 31, 2018	By September, 2018

**(iii) Dividend Policy**

Pursuant to Reg. 43A of the SEBI LODR Regulations, the Company has formulated a Dividend Distribution Policy and the same is available in the Company's website in the following link:

<http://www.nalcoindia.com/download/Dividend%20Policy.pdf>

The policy inter-alia includes:

1. The circumstances under which the shareholders may or may not expect dividend.
2. Financial parameters to be considered.
3. The internal and external factors to be considered.
4. Use of retained earnings.
5. Parameters to be adopted with regard to various classes of shares.

As per the recent guidelines issued by Department of Investment and Public Asset Management (DIPAM), every CPSE would pay a minimum annual dividend of 30% of PAT or 5% of net-worth whichever is higher subject to maximum dividend permitted under the extant legal provisions.

Although, the Company had made a provision of Rs. 193.29 crore towards final dividend for 2015-16 but it actually paid Rs. 144.97 crore as final dividend for the same period. The lower dividend pay-out was due to reduction in the paid up capital subsequent to the buyback of shares which took place in September, 2016.

During the Financial Year 2016-17, NALCO paid interim dividend @ Rs. 2.80 per share (56% on face value of Rs.5 each) on the revised paid-up capital of Rs. 966.46 crore. Since, no final dividend is declared for the FY 2016-17, the total dividend pay-out for the year 2016-17 is Rs. 541.22 crores against Rs. 467.13 crore actually paid for 2015-16. This excludes dividend distribution tax. The dividend payout including tax thereon works out to 97.44% of PAT.

The total dividend paid for the financial year 2016-17 works out to 81% of the Profit after Tax (PAT) and 5.3% of the net worth.

**(iv) Dividend History for past 5 years**

Year	Dividend per share (Rs.) Interim(I), Final(F)	Payment date Interim(I), Final(F)	Total Dividend (Rs. in crores)	% of dividend to PAT
2011-12	(I)- Rs.0.90 (F)- Rs.0.10	(I)- 31.03.2012 (F)-10.09.2012	257.72	30.33
2012-13	(I)- Rs.0.75 (F)- Rs.0.50	(I)- 30.03.2013 (F)-23.10.2013	322.15	54.34
2013-14	(I)- Rs.1.10 (F)- Rs.0.40	(I)-25.03.2014 (F)-15.10.2014	386.59	60.16
2014-15	(I)- Rs.0.50 (F)- Rs.1.25	(I)-30.03.2015 (F)-19.10.2015	451.02	34.12
2015-16	(I)- Rs.1.25 (F)- Rs.0.75	(I)-31.03.2016 (F)-25.10.2016#	467.13*	70.50

# Subsequent to buy back of shares.

\* Interim dividend @ Rs. 1.25 on 257,72,38,512 shares and final dividend @Rs.0.75 on 193,29,28,884 shares.



**(vii) Equity Shares in Suspense Account**

No equity shares are lying in suspense account in terms of Regulation 34(3) and schedule V part F of SEBI Listing Regulations.

**(viii) Transfer of unpaid/unclaimed dividend to IEPF**

In accordance with the provisions under the Companies Act, 2013, an amount of Rs.3,13,220/- pertaining to unclaimed final dividend amount for financial year 2008-09 and an amount of Rs.3,87,504/- pertaining to unclaimed interim dividend amount for the financial year 2009-10 have been transferred to Investor Education and Protection Fund, during the financial year 2016-17.

The Company has uploaded the details of shareholders of the Company containing information like name, address, amount due to be transferred to IEPF and due date of transfer of amount to IEPF on its website and on MCA website.

**(ix) Listing on Stock Exchanges**

The Company has executed the shortened version of Listing Agreement within the stipulated time as required under the SEBI (LODR) Regulations, 2015.

Listing status of NALCO shares in Stock Exchanges are given below:

Particulars	Stock Exchanges where shares are listed	
	BSE Limited	National Stock Exchange of India Ltd.
Scrip code	532234	NATIONALUM
Traded from	19.10.1992	28.04.1999
Stock code (ISIN)	INE 139A01034	INE 139A01034
Payment of Listing Fees for 2017-18	24.04.2017	19.04.2017

Annual Custody/Issuer fee for the year 2016-17 has been paid by the Company to NSDL and CDSL.

**(x) Market Price Data for Financial year 2016-17**

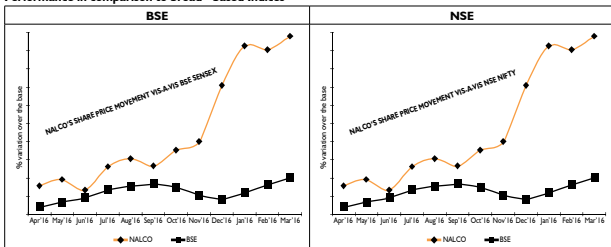
MONTH	SHARE PRICE (BSE) (Amount in Rs.)			SHARE PRICE (NSE) (Amount in Rs.)			MARKET CAPITALISATION (Rs. in Crore)	
	H	L	Avg. Turnover	H	L	Avg. Turnover	NSE	BSE
April, 2016	47.75	38.00	268861	47.95	37.90	1406316	10853.32	10847.17
May	48.10	40.25	152697	48.20	40.25	811199	11040.19	11046.37
June	43.55	40.70	125270	43.50	40.55	885249	10773.68	10782.59
July	51.40	42.30	341298	51.35	42.30	1523576	12089.05	12089.93
August	50.60	46.35	126126	50.60	46.30	635688	12359.26	12354.28
September	51.40	42.95	159106	51.30	42.65	844779	9032.67	9030.88
October	54.80	45.60	309531	54.90	45.55	1363586	9764.95	9766.21
November	58.85	45.55	419057	58.90	45.00	1689514	10185.88	10187.26
December	72.45	53.75	878112	73.15	53.65	3902580	11851.58	11853.68
January, 2017	79.35	63.50	435737	79.45	63.55	2319067	13746.81	13742.46
February	77.75	63.50	371539	77.95	63.50	2016836	13274.03	13271.57
March	79.85	69.00	455005	79.95	67.00	2170292	14350.15	14329.88

H=Highest, L=Lowest Source: Web-sites of BSE & NSE





## (xi) Performance in comparison to broad - based Indices



## (xii) Reconciliation of Share Capital

The Reconciliation of Share Capital audit is carried out on quarterly basis to reconcile the total admitted equity share capital with National Securities Depository Limited (NSDL) and Central Depository Services (India) Limited (CDSL) and the total issued and listed equity share capital. The report confirms that the total issued/paid-up capital is in agreement with the total no. of shares in physical form and no. of shares in demat form with NSDL and CDSL.

Further, half-yearly certificates on compliance of share transfer formalities obtained from Practicing Company Secretary were submitted to Stock Exchanges in time pursuant to Reg.40(9) of the SEBI Listing Regulations.

## XI. Registrar and Transfer Agents

- i. Share Registry work of NALCO was transferred to M/s Karvy Computershare Private Limited w.e.f. 08-02-2016 to take care of all share and dividend related operations for shareholders, holding shares in both physical and electronic segments. Details of the Registrar and Transfer Agent i.e. address, contact no., mail ids are given below:

Karvy Computershare Private Limited,

Karvy Selenium Tower B,

Plot No.31-32, Gachibowli,

Financial District, Nanakramguda,

Hyderabad-500032.

Tel. No. 040-67161500, Fax No. 040-23420814; Toll Free No.18003454001,

Email Address: i. Ramdas.g@karvy.com ; ii. Ratnagiri.n@karvy.com ; iii. Raju.sv@karvy.com ; iv. Rathi.govind@karvy.com

- ii. Shareholding pattern as on 31.03.2017

Sl. No.	Category	No. of Shareholders	No. of shares	Percentage of shareholding
1.	Promoters (Government of India)	1	1441482490	74.58
2.	Mutual Funds	39	22758070	1.18
3.	Banks/ Financial Institutions	22	231609087	11.98
4.	Insurance Companies	-	-	-
5.	FIs	135	77277058	4
6.	Foreign Portfolio Investor (Corporate)	-	-	-
6.	Bodies Corporate	1045	102380262	5.3
7.	Indian Public	75988	51352960	2.66
8.	Others	1719	6068957	0.3
	<b>TOTAL</b>	<b>78949</b>	<b>1932928884</b>	<b>100</b>



iii. Distribution of shareholding as on 31.03.2017

Number of shares	No. of Shareholders	% of shareholders	No. of shares	% of share capital
1-200	46087	58.38	4285081	0.22
201-500	16764	21.24	6433754	0.33
501-1000	7644	9.68	6385956	0.33
1001-50000	8221	10.41	34356306	1.78
50001-100000	82	0.10	5832239	0.30
100001 and above	151	0.19	1875635548	97.04
<b>TOTAL</b>	<b>78949</b>	<b>100</b>	<b>1932928884</b>	<b>100</b>

iv. Top 10 equity shareholders of the Company as on 31.03.2017

Sl. No.	Name of shareholder	No. of shares	% of holding
1.	Life Insurance Corporation of India	177123674	9.16
2.	Bajaj Allianz Life Insurance Company Ltd	29218221	1.51
3.	Hindalco Industries Ltd	28384938	1.47
4.	Government Pension Fund Global	11851369	0.61
5.	General Insurance Corporation of India	10000000	0.52
6.	LIC of India Market Plus I Growth Fund	9987308	0.52
7.	LIC of India Profit Plus Growth Fund	9324184	0.48
8.	HDFC Standard Life Insurance Company Limited	6248500	0.32
9.	Vanguard Emerging Markets Stock Index Fund, A series of Vanguard International Equity Fund	6221247	0.32
10.	The New India Assurance Company Limited	6039876	0.31
	<b>TOTAL</b>	<b>294399317</b>	<b>14.7</b>

v. Dematerialisation / Rematerialisation of Listed Shares & Liquidity

NALCO shares are in compulsory dematerialized segment for trading. 99.87% of the Company's share capital stands dematerialized as on 31st March, 2017.

Total no. of shares held in physical and in dematerialization mode as on 31.03.2017:

	No. of Shares	% to total shares	No. of shareholders
Demat shares with NSDL	188,19,89,442	97.36	50,705
Demat shares with CDSL	4,84,84,512	2.51	24,266
Shares in physical mode	24,54,930	0.13	3,978
<b>TOTAL</b>	<b>193,29,28,884</b>	<b>100</b>	<b>78,949</b>

During the year, the Company has confirmed 80 dematerialization requests involving 42164 shares. The Company has also confirmed 2 rematerialisation requests for 1438 shares during the year and the physical share certificates were dispatched to the shareholders within stipulated time.

## XII. Commodity Price Risk or Foreign Exchange Risk and Hedging Activities

The matter is dealt separately under Management Discussion and Analysis report.

## XIII. Outstanding GDRs/ADRs/Warrants or any Convertible Instruments, Conversion Date and likely impact on equity

No GDRs/ADRs/Warrants or any Convertible instruments has been issued by the Company.

## XIV. Non-mandatory Requirements

The status of compliance with discretionary requirements under Regulation 27(1) read with part E of schedule II of SEBI LODR are as under:

- The Company is headed by an Executive Chairman.
- The quarterly financial results of the Company are published in leading newspapers and also hosted on the website of the Company.



- c. The Company has been getting unqualified audit report from Statutory Auditors and C&AG for last several years which indicate a regime of unqualified financial statements.
- d. The Company has an Executive Chairman & Managing Director, who is also the CEO of the Company.
- e. The Internal Auditor reports to the Audit Committee of the Board.

#### XV. Plant locations of the Company

Registered & Corporate Office :	Smelter Plant
NALCO Bhawan Plot No. P/1, Nayapalli, Bhubaneswar – 751 013 (Odisha)	Nalco Nagar, Angul - 759 145 (Odisha)
Mines & Refinery	Captive Power Plant
Mines & Refinery Complex Damanjodi - 763 008 Dist.-Koraput (Odisha)	Angul - 759 122 (Odisha)
Port Facilities	Jaisalmer 47.6 MW Wind Power Plant
Opposite Ore Handling Complex Port Area, Visakhapatnam – 530 035 (Andhra Pradesh)	National Aluminium Company Limited Village - Ludarva, Kahela, Khadero-Ki-Dhani, Tawariya, Chatrel Division/Taluk/District - Jaisalmer Rajasthan - 345001
Gandikota 50.4 MW Wind Power Plant	Jaisalmer 50.0 MW Wind Power Plant
National Aluminium Company Limited Village - Gandikota, Division - Prodattur Taluka - Jammalmadugu, District – Kadapa Andhra Pradesh	National Aluminium Company Limited Village - Lala, Karada, Division - Devikot, Tehsil - Fatehgarh District - Jaisalmer Rajasthan - 345001
Sangli 50.4 MW Wind Power Plant	
National Aluminium Company Limited Village - Mendhigiri, Taluk - Jath District – Sangli Maharashtra - 416404	

#### XVI. Address for correspondence

Company Secretary  
National Aluminium Company Ltd  
NALCO Bhawan, P/1, Nayapalli  
Bhubaneswar- 751 013

E-mail addresses: i) [nkmohanty@nalcoindia.co.in](mailto:nkmohanty@nalcoindia.co.in)  
ii) [bharatsahu@nalcoindia.co.in](mailto:bharatsahu@nalcoindia.co.in)




**ABP & ASSOCIATES**

Chartered Accountants  
11A, Bapuji Nagar,  
Bhubaneswar-751 009  
E-mail: mail@caabp.com

**GUHA, NANDI & CO.**

Chartered Accountants  
Commerce House, 5th Floor, Room 8D & E,  
2A, Ganesh Chandra Avenue, Kolkata-700 013  
E-mail: guhanandi@gmail.com

## AUDITORS' CERTIFICATE

To  
The Members  
National Aluminium Company Limited,  
Bhubaneswar

We have examined the compliance of conditions of Corporate Governance by NATIONAL ALUMINIUM COMPANY LIMITED, for the year ended on 31<sup>st</sup> March, 2017 as per the provisions of Regulation 17(1)(b) of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 ("Listing Regulations").

The compliance of conditions of Corporate Governance is the responsibility of the management. Our examination was limited to procedures and implementation thereof, adopted by the company for ensuring the compliance of the conditions of Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the company.

In our opinion and to the best of our information and according to the explanations given to us, and the representation made by the Management, we certify that the Company has complied with the conditions of Corporate Governance as stipulated in the above mentioned Listing Regulations subject to the followings:

**Non Compliances: Composition of Board of Directors:**

- As per the provisions of Regulation 17(1)(b) of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 ("Listing Regulations"), where the Chairperson of the Board of directors is a Non-Executive Director, at least one-third of the Board of Directors shall comprise of Independent Directors and where the listed entity does not have a regular Non-Executive Chairperson, at least half of the Board of directors shall comprise of Independent Directors.

**The company did not have requisite number of independent directors on its Board during the financial year 2016-17 except for the period from 1<sup>st</sup> March, 2017 to 15<sup>th</sup> March, 2017.**

**Non Compliances: Meeting of Board of Directors:**

- As per DPE guidelines on Corporate Governance, meeting of Board of Directors to be held once in every three months and atleast four such meetings shall be held every year. Further, the time gap between any two meetings should not be more than three months.

**During the financial year 2016-17, Eight (8) meeting of Board of Directors i.e. from 291<sup>st</sup> to 298<sup>th</sup> were held. There was a gap of more than 3 (three) months between 294<sup>th</sup> Board meeting held on 12.09.2016 and 295<sup>th</sup> Board meeting held on 14.12.2016, which is in contravention of the requirement under DPE guidelines on Corporate Governance.**

We further state that such compliance is neither an assurance as to the future viability of the company nor the efficiency or effectiveness with which the management has conducted the affairs of the Company.

**For ABP & Associates**

Chartered Accountants  
FRN – 315104E

(CA Kamal Kumar Chanduka)  
Partner  
Membership No. 058790

Place : Bhubaneswar  
Dated : 17th July, 2017

**For Guha Nandi & Co.**

Chartered Accountants  
FRN – 302039E

( B. K.Sarawagi)  
Partner  
Membership No.054894



## FORM NO. AOC-2

## (Pursuant to clause (h) of sub-section (3) of section 134 of the Companies Act, 2013 and Rule 8(2) of the Companies (Accounts) Rules, 2014)

Form for disclosure of particulars of contracts / arrangements entered into by the company with related parties referred to in sub-section (1) of section 188 of the Companies Act, 2013 including certain arm's length transactions under third proviso thereto:

1. **Details of contracts or arrangements or transactions not at arm's length basis:**
  - (a) Name(s) of the related party and nature of relationship: **NIL**
  - (b) Nature of contracts/arrangements/transactions: **Not Applicable**
  - (c) Duration of the contracts / arrangements/transactions: **Not Applicable**
  - (d) Salient terms of the contracts or arrangements or transactions including the value, if any: **Not Applicable**
  - (e) Justification for entering into such contracts or arrangements or transactions: **Not Applicable**
  - (f) Date(s) of approval by the Board: **Not Applicable**
  - (g) Amount paid as advances, if any: **Not Applicable**
  - (h) Date on which the special resolution was passed in general meeting as required under first proviso to section 188: **Not Applicable**
2. **Details of material contracts or arrangement or transactions at arm's length basis:**
  - a. Name(s) of the related party and nature of relationship: **NIL**
  - b. Nature of contracts / arrangements / transactions: **Not Applicable**
  - c. Duration of the contracts / arrangements / transactions: **Not Applicable**
  - d. Salient terms of the contracts or arrangements or transactions including the value, if any: **Not Applicable**
  - e. Date(s) of approval by the Board, if any: **Not Applicable**
  - f. Amount paid as advances, if any: **Not Applicable**

For and on behalf of the Board of Directors

Sd/-

(Dr. TAPAN KUMAR CHAND)

CHAIRMAN-CUM-MANAGING DIRECTOR



**FORM NO. MGT-9**  
**Extract of Annual Return**  
**as on the financial year ended on 2016-17**

[Pursuant to section 92(3) of the Companies Act, 2013 and rule 12(1) of the Companies (Management and Administration) Rules, 2014]

**I. REGISTRATION AND OTHER DETAILS:**

- i) CIN : L27203OR1981GOI000920
- ii) Registration Date : 7<sup>th</sup> JANUARY 1981
- iii) Name of the Company : NATIONAL ALUMINIUM COMPANY LTD
- iv) Category/Sub-Category of the Company : PUBLIC SECTOR COMPANY LIMITED BY SHARES
- v) Address of the Registered office and contact details : NATIONAL ALUMINIUM COMPANY LTD,  
 NALCO BHAWAN, NAYAPALLI,  
 BHUBANESWAR-751013,  
 website: www.nalcoindia.com
- vi) Whether listed company : Yes
- vii) Name, Address and Contact details of Registrar and Transfer Agent, if any : M/s Karvy Computer Share Private Limited.  
 Karvy Selenium Tower B, Plot No.31-32,  
 Gachibowli, Financial District,  
 Nanakramguda, Hyderabad-500032, Telangana  
 Tel. No. 040-67161500, Fax No. 040-23420814  
 Toll Free No.18003454001, Email: einward.ris@karvy.com,  
 Website: www.karvycomputershare.com

**II. PRINCIPAL BUSINESS ACTIVITIES OF THE COMPANY**

All the business activities contributing 10% or more of the total turnover of the company shall be stated:-

Sl.No.	Name and Description of main products/ services	NIC Code of the Product/ service	% to total turnover of the company
1	Alumina*	201	32.58
2	Aluminium	242	66.46
3	Power**	351	0.96

\*Alumina includes Alumina Hydrate, Special Grade Hydrate, Special Grade Alumina and other Chemicals.

\*\* Power includes Renewable energy (Wind Power)

**III. PARTICULARS OF HOLDING, SUBSIDIARY AND ASSOCIATE COMPANIES**

Sl. No.	Name and address of the company	Holding/subsidiary/Associate	%of shares held	Applicable Section
1.	NPCIL- NALCO Power Company Ltd 16th floor, Centre-1, World Trade Centre, Cuffe Parade, Colaba, Mumbai-400005	Associate	26	2(6)
2.	Angul Aluminium Park Pvt Ltd IDCO Tower, Janpath, Bhubaneswar-751022	Associate	49	2(6)
3.	GACL- NALCO Alkalis & Chemicals Pvt.Ltd.	Associates	40	2(6)

## IV. SHARE HOLDING PATTERN (Equity Share Capital Breakup as percentage of Total Equity)

## Category-wise Shareholding

Category of Shareholders	No. of Shares held at the beginning of the year				No. of Shares held at the end of the year				% Change during theyear
	Demat	Physical	Total	% of Total Shares	Demat	Physical	Total	% of Total Shares	
<b>(A) Promoters</b>									
<b>(1) Indian</b>									
(a) Individual/ HUF									
(b) Central Govt	2085782622	-	2085782622	80.93	1441482490	0	1441482490	74.58	(6.35)
(c) State Govt(s)	-	-	-	-					
(d) Bodies Corp.	-	-	-	-					
(e) Banks / FI	-	-	-	-					
(f) Any Other	-	-	-	-					
<b>Sub-total(A)(1)</b>									
<b>(2) Foreign</b>									
(a) NRIs - Individuals	-	-	-	-					
(b) Other - Individuals	-	-	-	-					
(c) Bodies Corp.	-	-	-	-					
(d) Banks / FI	-	-	-	-					
(e) Any Other	-	-	-	-					
<b>Sub-total (A) (2)</b>									
<b>Total shareholding of Promoter(A) = (A)(1)+(A)(2)</b>	<b>2085782622</b>	<b>-</b>	<b>2085782622</b>	<b>80.93</b>	<b>1441482490</b>	<b>0</b>	<b>1441482490</b>	<b>74.58</b>	<b>(6.35)</b>
<b>(B) Public shareholding</b>									
<b>(1) Institutions</b>									
(a) Mutual Funds	14451621	88600	14540221	0.56	22669470	88600	22758070	1.18	0.62
(b) Banks / FI	243124171	0	243124171	9.43	231609087	0	231609087	11.98	2.55
(c) Central Govt									
(d) State Govt(s)									
(e) Venture Capital Funds									
(f) Insurance Companies	0	1600	1600	0.00	0	1600	1600	0.00	0
(g) FIs	55365909	30200	55396109	2.15	77246858	30200	77277058	4.00	1.85
(h) Foreign Venture Capital Funds									
(i) Others(specify)									
<b>Sub-total(B)(1)</b>	<b>312941701</b>	<b>120400</b>	<b>313062101</b>	<b>12.15</b>	<b>331525415</b>	<b>120400</b>	<b>331645815</b>	<b>17.16</b>	<b>5.01</b>
<b>(2) Non- Institutions</b>									
(a) Bodies Corp.									
i) Indian	111205802	17200	111223002	4.32	102363062	17200	102380262	5.30	0.98
ii) Overseas									
(b) Individuals									
i) Individual shareholders holding nominal share capital upto Rs. 1 lakh	47109153	1571656	48680809	1.89	38564017	1530930	40094947	2.07	0.18
ii) Individual shareholders holding nominal share capital in excess of Rs 1 lakh	14228739	0	14228739	0.55	11258013	0	11258013	0.58	0.03
(c) Others (specify)	3474839	786400	4261239	0.17	5280957	786400	6067357	0.31	0.14
<b>Sub-total (B)(2)</b>	<b>176018533</b>	<b>2375256</b>	<b>178393789</b>	<b>6.92</b>	<b>157466049</b>	<b>2334530</b>	<b>159800579</b>	<b>8.27</b>	<b>1.35</b>
<b>Total Public Shareholding (B) = (B)(1)+(B)(2)</b>	<b>488960234</b>	<b>2495656</b>	<b>491455890</b>	<b>19.07</b>	<b>488991464</b>	<b>2454930</b>	<b>491446394</b>	<b>25.42</b>	<b>6.35</b>
C. Shares held by Custodian for GDRs & ADRs									
<b>Grand Total(A+B+C)</b>	<b>2574742856</b>	<b>2495656</b>	<b>2577238512</b>	<b>100</b>	<b>1930473954</b>	<b>2454930</b>	<b>1932928884</b>	<b>100</b>	



**(ii) Shareholding of Promoters**

Sl No.	Shareholder's Name	Shareholding at the beginning of the year			Shareholding at the end of the year			% change in share holding during the year
		No. of Shares	% of total Shares of the company	% of Shares Pledged/ encumbered to total shares	No. of Shares	% of total Shares of the company	% of Shares Pledged/ encumbered to total shares	
I	President of India	2085782622	80.93	-	1441482490	74.58	-	6.35
	<b>Total</b>	<b>2085782622</b>	<b>80.93</b>	<b>-</b>	<b>1441482490</b>	<b>74.58</b>	<b>-</b>	<b>6.35</b>

**(iii) Change in Promoters' Shareholding (please specify, if there is no change)**

Sl No.		Shareholding at the beginning of the year		Cumulative Shareholding during the year	
		No. of shares	% of total shares of the company	No. of shares	% of total shares of the company
	At the beginning of the year	2085782622	80.93		74.58
	Date wise Increase / Decrease in Promoters Shareholding during the year specifying the reasons for increase / decrease (e.g. allotment / transfer/ bonus / sweat equity etc):	64,43,00,132 Buyback of shares	25%	1441482490	74.58
	At the End of the year			1441482490	74.58

**(iv) Shareholding Pattern of top ten Shareholders (other than Directors, Promoters and Holders of GDRs and ADRs):**

Sl. No.	For Each of the Top 10 Shareholders	Shareholding at the beginning of the year (as on 31.03.2016)		Cumulative Shareholding during the year (as on 31.03.2017)	
		No. of shares	% of total shares of the company	No. of shares	% of total shares of the company
1.	Life Insurance Corporation of India	177316005	6.88	177123674	9.16
2.	Bajaj Allianz Life Insurance Company Ltd	31602297	1.23	29218221	1.51
3.	Hindalco Industries Ltd	28384938	1.10	28384938	1.47
4.	Government Pension fund Global	0	0	11851369	0.61
5.	General Insurance Corporation of India	11009536	0.43	10000000	0.52
6.	LIC of India Market Plus I Growth Fund	9987308	0.39	9987308	0.52
7.	LIC Of India Profit Plus Growth Fund	9324184	0.36	9324184	0.48
8.	HDFC Standard Life Insurance Company Limited	6144500	0.24	6248500	0.32
9.	Vanguard Emerging Markets Stock Index Fund, Aseries of Vanguard International Equity Fund	0	0	6221247	0.32
10.	The New India Assurance Company Limited	7139876	0.28	6039876	0.31

The shares of the company are traded on a daily basis and hence the date wise increase/decrease in shareholding is not indicated.



(v) **Shareholding of Directors and Key Managerial Personnel:**

Sl. No.	For Each of the Directors and KMP	Shareholding at the beginning of the year		Cumulative Shareholding during the year	
		No. of shares	% of total shares of the company	No. of shares	% of total shares of the company
1.	Dr. T.K.Chand, CMD	Nil	-	Nil	-
2.	Shri K C Sarnal Director (Fin)	400	-	400	-
3.	Shri V Balasubramanyam, Director (Prod)	5260	-	Nil	-
4.	Shri B K Thakur	Nil	-	Nil	-
5.	Shri S K Roy	5659	-	5659	-
6.	Shri K N Ravindra, Company Secretary	2260	-	260	-

V. **INDEBTEDNESS****Indebtedness of the Company including interest outstanding/accrued but not due for payment**

Indebtedness at the beginning of the financial year		Secured Loans excluding deposits	Unsecured Loans	Deposits	Total Indebtedness
i)	Principal Amount	Nil			
ii)	Interest due but not paid	Nil	Nil	Nil	Nil
iii)	Interest accrued but not due	Nil	Nil	Nil	Nil
<b>Total(i+ii+iii)</b>		<b>Nil</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>
Change in Indebtedness during the financial year		Nil	Nil	Nil	Nil
-	Addition	Nil	Nil	Nil	Nil
-	Reduction	Nil	Nil	Nil	Nil
<b>Net Change</b>		<b>Nil</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>
Indebtedness at the end of the financial year		Nil	Nil	Nil	Nil
i)	Principal Amount	Nil	Nil	Nil	Nil
ii)	Interest due but not paid	Nil	Nil	Nil	Nil
iii)	Interest accrued but not due	Nil	Nil	Nil	Nil
<b>Total(i+ii+iii)</b>		<b>Nil</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>

Note: Short term borrowings as reported in the financial statements represents bills discounted but not collected by the bank as on the reporting date.

VI. **REMUNERATION OF DIRECTORS AND KEY MANAGERIAL PERSONNEL**A. **Remuneration to Managing Director, Whole-time Directors and/or Manager:**

Sl. no.	Particulars of Remuneration	Name of MD/WTD/ Manager								
		Dr. T.K.Chand CMD	Shri K.C.Sarnal, Director(F)	Shri V Balasubramanyam Director (Prod)	Shri B.K.Thakur Director (HR)	Shri S.K. Roy, Director (P&T) w.e.f 03.02.2017	Shri S.C. Pathy, Director (HR) Upto 30.06.2016	Smt Soma Mandal Director(C) Upto 28.02.2017	Shri N.R. Mohanty, Director (P&T) upto 31.01.2017	Total Amount
I.	Gross salary									
(a)	Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961	4,542,071	4,079,548	3,613,432	2,344,982	5,42,513	3,232,875	4,086,493	5,465,453	27,907,367
(b)	Value of perquisites u/s 17(2) Income-tax Act, 1961	18,000	26,675	2,33,677	68,945	3,000	1,43,795	4,03,095	1,66,881	1,064,068
(c)	Profits in lieu of salary under section 17(3) Income-tax Act, 1961									



Sl. no.	Particulars of Remuneration	Name of MD/WTD/ Manager								
		Dr. T.K.Chand CMD	Shri K.C.Samal, Director(F)	Shri V Balasubramanyam Director (Prod)	Shri B.K.Thakur Director (HR)	Shri S.K Roy, Director (P&T) w.e.f 03.02.2017	Shri S.C. Padhy, Director (HR) Upto 30.06.2016	Smt Soma Mondal Director(C) Upto 28.02.2017	Shri N.R. Mohanty, Director (P&T) upto 31.01.2017	Total Amount
2.	Stock Option									
3.	Sweat Equity									
4.	Commission - as % of profit									
	- others, specify									
5.	Others, please specify									
	<b>Total (A)</b>	<b>4,560,071</b>	<b>4,106,223</b>	<b>3,847,109</b>	<b>2,413,927</b>	<b>5,45,513</b>	<b>3,376,670</b>	<b>4,489,588</b>	<b>5,632,334</b>	<b>28,971,435</b>
	Ceiling as per the Act									

### B. Remuneration to other directors:

Sl. no.	Particulars of Remuneration	Name of Directors						
		Shri S Sankaraman	Shri P K Nayak	Shri M Sahu	Shri D Mahanta	Prof. D Acharya	Ms. Kiran Ghai Sinha w.e.f 03.02.17	Total
3	<b>Independent Directors</b>							
	- Fee for attending board committee meetings	3,80,000	4,00,000	2,00,000	5,20,000	3,60,000	20,000	18,80,000
	- Commission							
	- Others, please specify							
	<b>Total (1)</b>	<b>3,80,000</b>	<b>4,00,000</b>	<b>2,00,000</b>	<b>5,20,000</b>	<b>3,60,000</b>	<b>20,000</b>	<b>18,80,000</b>
4.	<b>Other Non-Executive Directors</b>							
	- Fee for attending board committee meetings							
	- Commission							
	- Others, please specify							
	Total (2)							
	<b>Total (B)=(1+2)</b>	<b>3,80,000</b>	<b>4,00,000</b>	<b>2,00,000</b>	<b>5,20,000</b>	<b>3,60,000</b>	<b>20,000</b>	<b>18,80,000</b>
	<b>Total Managerial Remuneration</b>							
	<b>Overall Ceiling as per the Act</b>							

### C. Remuneration to Key Managerial Personnel other than MD/ Manager/ WTD

Sl. no.	Particulars of Remuneration	Key Managerial Personnel			
		CEO	Company Secretary	CFO	Total
			Shri K N Ravindra		
1.	<b>Gross salary</b>				
	(a) Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961		3,672,078		3,672,078
	(b) Value of perquisites u/s 17(2) Income-tax Act, 1961		21,951		21,951
	(c) Profits in lieu of salary under section 17(3) Income-tax Act, 1961				
2.	Stock Option				
3.	Sweat Equity				
4.	Commission				
	- as % of profit				
	- others, specify...				
5.	Others, please specify				
	<b>Total</b>		<b>3,694,029</b>		<b>3,694,029</b>



## VII. PENALTIES / PUNISHMENT/ COMPOUNDING OF OFFENCES:

Type	Section of the Companies Act	Brief Description	Details of Penalty / Punishment / Compounding fees imposed	Authority [RD/NCLT/ COURT]	Appeal made, if any (give details)
<b>A. Company</b>					
Penalty					
Punishment				NIL	
Compounding					
<b>B. Directors</b>					
Penalty					
Punishment				NIL	
Compounding					
<b>C. Other Officers in Default</b>					
Penalty					
Punishment				NIL	
Compounding					





## FORM NO. MR-3 SECRETARIAL AUDIT REPORT FOR THE FINANCIAL YEAR 2016-17

[Pursuant to section 204(1) of the Companies Act, 2013 and Rule No.9 of the Companies  
(Appointment and Remuneration of Managerial Personnel) Rules, 2014]

To  
The Members  
National Aluminium Company Limited  
NALCO Bhawan, Plot No. P/1, Nayapalli  
Bhubaneswar – 751013 (Odisha)

We have conducted the Secretarial Audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by **M/s. National Aluminium Company Limited** (hereinafter called 'the Company') for the financial year ended **31<sup>st</sup> March, 2017**. Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conduct/statutory compliances and expressing our opinion thereon.

Based on our verification of the Company's books, papers, minute books, forms and returns filed and other records maintained by the Company and also the information provided by the Company, its officers and authorized representatives during the conduct of Secretarial Audit, we hereby report that in our opinion, the Company has, during the audit period covering the financial year ended on 31<sup>st</sup> March, 2017, complied with the statutory provisions listed hereunder and also that the Company has proper Board- processes and compliance - mechanism in place to the extent, in the manner and subject to the reporting made hereinafter:

We have examined the books, papers, minute books, forms and returns filed and other records maintained by the Company for the financial year ended on 31<sup>st</sup> March, 2017, according to the provisions of:

- (i) The Companies Act, 2013 (the Act), and Rules made there under;
- (ii) The Companies Act, 1956 and Rules made there under, to the extent for specified sections in the Act, not yet notified.
- (iii) The Securities Contracts(Regulation) Act, 1956 ('SCRA') and the Rules made there under;
- (iv) The Depositories Act, 1996 and the Regulations and Bye-laws framed there under;
- (v) Foreign Exchange Management Act, 1999 and the rules and regulations made there under to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings;
- (vi) The following Agreement, Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act'):-
  - a. The Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015;
  - b. The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;
  - c. The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;
  - d. The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2009;  
**(Not applicable to the Company during the Audit Period)**
  - e. The Securities and Exchange Board of India (Share Based Employee Benefits) Regulations, 2014;  
**(Not applicable to the Company during the Audit Period)**
  - f. The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008;  
**(Not applicable to the Company during the Audit Period)**
  - g. The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2009;  
**(Not applicable to the Company during the Audit Period)**
  - h. The Securities and Exchange Board of India (Buyback of Securities) Regulations, 1998.



- (vii) The other laws as may be applicable specifically to the Company are:
- The Mines Act, 1952;
  - Mines & Minerals (Development & Regulation) Act, 1957;
  - The Explosives Act, 1984;
  - Environment Protection Act, 1986;
  - The Forest Conservation Act, 1980;
  - The Water (Prevention & Control of Pollution Act), 1974;
  - The Air (Prevention and Control of Pollution) Act, 1981;
  - Indian Boilers Act, 1923.

We have also examined compliance with the applicable clauses of the following:

- Secretarial Standards issued by The Institute of Company Secretaries of India (ICSI).
- The Uniform Listing Agreements entered into by the Company with the National Stock Exchange of India Limited and BSE Limited. During the period under review, the Company has complied with the provisions of the Act, Rules, Regulations, Guidelines, Standards, etc. as mentioned above.

#### BOARD COMPOSITION:

During the financial year under review, the Board of Directors of the Company consisted of the following Directors:

#### LIST OF DIRECTORS DURING THE FINANCIAL YEAR

Sl. No.	Name of the Directors	Positions Held	Date of Appointment	Date of Cessation
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#### WHOLE-TIME DIRECTORS

1.	Dr. Tapan Kumar Chand	Chairman-cum-Managing Director	27.07.2015	-
2.	Shri N. R. Mohanty	Director (P & T)	01.02.2012	01.02.2017
3.	Shri S. C. Padhy	Director (HR)	20.12.2012	01.07.2016
4.	Shri K.C. Samal	Director(Finance)	03.01.2014	-
5.	Ms. Soma Mondal	Director(Commercial)	11.03.2014	01.03.2017
6.	Shri V. Balasubramanyam	Director(Production)	01.01.2015	-
7.	Shri. B. K. Thakur	Director (HR)	04.07.2016	-
8.	Shri. S. K. Roy	Director (P & T)	03.02.2017	-

#### PART-TIME OFFICIAL DIRECTORS

1.	Shri R. Sridharan	Director	30.08.2013	03.01.2017
2.	Shri. N. B. Dhal	Director	23.12.2015	20.10.2016
3.	Shri Subhash Chandra	Director	20.10.2016	-
4.	Shri. N. K. Singh	Director	15.03.2017	-

#### PART-TIME NON-OFFICIAL (INDEPENDENT) DIRECTORS

1.	Shri DipankarMahanta	Director	21.11.2015	-
2.	Shri S. Sankaraman	Director	21.11.2015	-
3.	Shri PravatKeshariNayak	Director	21.11.2015	-
4.	Prof.Damodar Acharya	Director	21.11.2015	-
5.	Shri MaheswarSahu	Director	21.11.2015	-
6.	Ms. Kiran Ghai Sinha	Director	03.02.2017	-



At the beginning of the year, there were six (6) Whole time Directors (Executive Directors), two (2) Part-time official Directors and five (5) Part – time Non-official (Independent) Directors on the Board of the Company. Out of six whole time Directors, the tenure of Shri S. C. Padhy, Director (HR) ended on 01.07.2016 and in his place Shri. B. K. Thakur was appointed on 04.07.2016 as Director (HR). The tenure of Shri N. R. Mohanty, Director (P & T) ended on 01.02.2017 and in his place Shri S. K. Roy, was appointed as Director (P & T) w.e.f 03.02.2017. Ms. Soma Mondal, Director (Commercial) ceased to be associated with the Company w.e.f 01.03.2017.

The terms of two Part-time official directors, namely Shri. N. B. Dhal & Shri R. Sridharan ended on 20.10.2016 & 03.01.2017 respectively and in their place Shri Subhash Chandra & Shri N. K. Singh were appointed on 20.10.2016 and 15.03.2017 respectively.

Ms. Kiran Ghai Sinha, was appointed as a Part-time Non-official (Independent) Director on 03.02.2017. Hence, the Company had five (5) Whole- time Directors, two (2) Part-time Official Directors and six (6) Part-time Non-official (Independent) Directors on the Board as on 31<sup>st</sup> March, 2017.

At the end of the year, the Composition of the Board was in Compliance with the provisions of Section 149(4) of the Companies Act, 2013 but was not in compliance with the requirements of Regulation 17(1) (b) of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015.

## Non Compliances:

1. As per the provisions of Regulation 17(1)(b) of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 (“Listing Regulations”), where the Chairperson of the Board of directors is a Non-Executive Director, at least one-third of the Board of Directors shall comprise of Independent Directors and where the listed entity does not have a regular Non-Executive Chairperson, at least half of the Board of directors shall comprise of Independent Directors. DPE guidelines on Corporate Governance also contain similar provisions as regards to the composition of Directors.

Since, the Chairman of the Company is an Executive Director, half of the Board is required to be comprised of Independent Directors.

The Company was having 6 (six) Executive Directors, 2 (two) Part-time Official Directors and 5 (five) Independent Directors at the beginning of the Financial Year. Further, as on 31<sup>st</sup> March, 2017, there were 5 (five) Executive Directors, 2 (two) Part-time Official Directors and 6 Part-time Non-official Directors.

The said composition of the Board was not in compliance with the requirements under Regulation 17(1)(b) of the Listing Regulations and DPE Guidelines. However, there were 5 (five) Executive Directors, 1 (one) Part-time Official Director and 6 Independent Directors during 01<sup>st</sup> March, 2017 to 15<sup>th</sup> March, 2017 which was in compliance with the above regulation.

For early appointment of requisite number of Independent Directors, the Company has been regularly following up with the Ministry of Mines, Government of India.

## BOARD MEETING:

During the financial year under review, Eight(8) meetings of the Board of Directors i.e. from 291<sup>st</sup> to 298<sup>th</sup> were held on 25.05.2016, 28.05.2016, 10.08.2016, 12.09.2016, 14.12.2016, 28.01.2017, 13.02.2017 & 02.03.2017 respectively. There was a gap of more than 3 (three) months between 294<sup>th</sup> Board Meeting held on 12.09.2016 and 295<sup>th</sup> Board Meeting held on 14.12.2016, which is in contravention of the requirement under DPE guidelines on Corporate Governance. For all the Board meetings, adequate notice was given to all Directors. Agenda and detailed notes on agenda were sent at least 7 days in advance and the Company has a system exists for seeking and obtaining further information and clarifications on the agenda items placed before the meetings for the meaningful participation at the meetings.

All decisions at the Board Meetings were carried out unanimously and recorded in the minutes book of the meeting.

## STATUTORY COMMITTEES OF THE BOARD:

### (i) AUDIT COMMITTEE:

The Audit Committee of the Board of Directors of the Company consists of the following members:

- Shri Pravat Keshari Nayak, Independent Director - Chairman
- Shri Dipankar Mahanta, Independent Director - Member
- Shri S. Sankaraman, Independent Director - Member
- Prof. Damodar Acharya, Independent Director - Member
- Director (P&T) - Member
- Director (Production) - Member

Director (Finance) is always an invitee to the Committee.

During the financial year, six (6) meetings of Audit Committee were held.



#### (ii) NOMINATION AND REMUNERATION COMMITTEE:

The Nomination and Remuneration Committee of the Board of Directors of the Company consists of the following members:

- Shri Maheswar Sahu, Independent Director – Chairman
- Shri S. Sankararaman, Independent Director – Member
- Shri Pravat Keshari Nayak, Independent Director – Member
- Prof. Damodar Acharya, Independent Director – Member
- Ms. Kiran Ghai Sinha, Independent Director – Member

Director (Finance) and Director (HR) are invitees to the meetings.

During the financial year, one (1) meeting of Nomination and Remuneration Committee was held.

#### (iii) STAKEHOLDERS RELATIONSHIP COMMITTEE:

The Stakeholders Relationship Committee of the Board of Directors of the Company consists of the following members:

- Shri S. Sankararaman, Independent Director – Chairman
- Shri Dipankar Mahanta, Independent Director – Member
- Shri Pravat Keshari Nayak, Independent Director – Member
- Ms. Kiran Ghai Sinha, Independent Director – Member
- Director (HR) – Member

During the financial year, three (3) Meetings of Stakeholders Relationship Committee were held.

#### (iv) CSR & SUSTAINABILITY DEVELOPMENT COMMITTEE:

The CSR & Sustainability Development Committee of the Board of Directors of the Company consists of the following members:

- Shri Dipankar Mahanta, Independent Director – Chairman
- Shri S. Sankararaman, Independent Director – Member
- Shri Maheswar Sahu, Independent Director – Member
- Ms. Kiran Ghai Sinha, Independent Director – Member
- Director (Finance) – Member
- Director (Production) – Member
- Director (HR) – Member

During the financial year, two (2) meetings of CSR & Sustainability Development Committee were held.

#### Amount spent in CSR activities:

As per the provisions of Section 135(5) of the Companies Act, 2013 read with The Companies (Corporate Social Responsibility Policy) Rules, 2014 and Schedule-VII of the Act, the CSR budget of the Company for the financial year 2016-17 was Rs.27.56 crores. However, the Company has spent Rs. 30.01 crores during the period on various CSR activities.

#### (v) RISK MANAGEMENT COMMITTEE:

The Risk Management Committee of the Board of Directors of the Company consists of the following members:

- Prof. Damodar Acharya, Independent Director – Chairman
- Shri S. Sankararaman, Independent Director – Member
- Ms. Kiran Ghai Sinha, Independent Director – Member
- Director (Finance) – Member
- Director (Production) – Member

During the financial year, one (1) meeting of Risk Management Committee was held.

**(vi) SEPARATE MEETING OF THE INDEPENDENT DIRECTORS:**

As per the provisions of Section 149(8) read with Clause VII of Schedule IV of the Companies Act, 2013, a separate meeting of Independent Directors of the Company was held on 18.10.2016. Adequate notice for the Meeting was given to all the Independent Directors of the Company.

Adequate notice was given to all Members for all Committee Meetings. Agenda and detailed notes on agenda were sent at least 7 days in advance. All decisions at the Committee Meetings were carried out unanimously and recorded in the minutes book of the respective Committee Meetings.

**Registrar and Share Transfer Agent:**

M/s. Karvy Computershare Private Limited, Hyderabad is the Registrar and Share Transfer Agent (RTA) of the Company.

We further report that there are adequate systems and processes in the Company commensurate with the size and operations of the Company to monitor and ensure compliance with applicable laws, rules, regulations and guidelines.

**Buy-Back of Shares:**

We further report that during the audit period, as per the decision of the Board of Directors and approval of the shareholders by a special resolution through postal ballot on 14-07-2016, the Company had bought back 644,309,628 number of equity shares of Rs. 5/- each on 21-09-2016 representing 25% of the total number of equity shares in the paid-up equity share capital of the Company. These shares were extinguished on 26.09.2016. The buyback offer was at a price of Rs. 44/- per share for an aggregate consideration of Rs. 2834.96 crores.

For **Saroj Ray & Associates**  
Company Secretaries

**CS Saroj Kumar Ray, FCS**  
Sr. Partner  
CP: 3770, FCS: 5098

Place : Bhubaneswar

Date : 10.07.2017

(This report is to be read with our letter of even date which is annexed as Annexure A and forms an integral part of this report)





## Annexure A

To  
The Members,  
National Aluminium Company Limited  
NALCO Bhawan, Plot No. P/1, Nayapalli  
Bhubaneswar – 751013 (Odisha)

Our report of even date is to be read along with this letter.

1. Maintenance of secretarial records is the responsibility of the management of the Company. Our responsibility is to express an opinion on these secretarial records based on our audit.
2. We have followed the audit practices and processes as were appropriate to obtain reasonable assurance about the correctness of the contents of the Secretarial records. The verifications were done on test basis to ensure that correct facts are reflected in secretarial records. We believe that the processes and practices, followed by the Company provide a reasonable basis for our opinion.
3. We have not verified the correctness and appropriateness of financial records and Books of Accounts of the company.
4. Wherever required, we have obtained the management representation about the compliance of laws, rules and regulations and happening of events etc.
5. The compliance of the provisions of Corporate and other applicable laws, rules, regulations, standards is the responsibility of the management. Our examination was limited to the verification of procedures on test basis.
6. The Secretarial Audit report is neither an assurance as to the future viability of the Company nor of the efficacy or effectiveness with which the management has conducted the affairs of the Company.

For **Saroj Ray & Associates**  
Company Secretaries

**CS Saroj Kumar Ray, FCS**  
Sr. Partner  
CP: 3770, FCS: 5098

Place : Bhubaneswar  
Date : 10.07.2017

#### Management's explanation on the qualifying remarks of Secretarial Auditor.

The qualifying remarks, reported by the Secretarial Auditor in their report for the Financial Year ended 31st March, 2017 and the explanations of the management are tabulated below:

Sl. No.	Qualifying remarks of Secretarial Auditor	Management's explanation
01.	The Company was having 6 (six) Executive Directors, 2 (two) Part-time Official Directors and 5 (five) Independent Directors at the beginning of the Financial Year. Further, as on 31st March, 2017, there were 5 (five) Executive Directors, 2 (two) Part-time Official Directors and 6 Part-time Non-official Directors. The said composition of the Board was not in compliance with the requirements under Regulation 17(1)(b) of the SEBI (Listing Obligations and Disclosure Requirements) Regulation, 2015 and DPE Guidelines. However, there were 5 (five) Executive Directors, 1 (one) Part-time Official Director and 6 Independent Directors during 1st March, 2017 to 15th March, 2017 which was in compliance with the above regulation.	President of India is the appointing authority for the Directors as per the Articles of Association of the Company. The Company has been regularly following up with Ministry of Mines, Govt. of India for early appointment of requisite number of Independent Directors for complying with the provisions of the Companies Act, 2013, SEBI (Listing Obligations and Disclosure Requirements) Regulation, 2015 and DPE guidelines.



02.	<p>During the financial year under review, Eight (8) meetings of the Board of Directors i.e. from 291st to 298th were held on 25.05.2016, 28.05.2016,10.08.2016,12.09.2016, 14.12.2016,28.01.2017, 13.02.2017 and 02.03.2017 respectively. There was a gap of more than 3 (three) months between 294th Board Meeting held on 12.09.2016 and 295th Board Meeting held on 14.12.2016, which is in contravention of the requirement under DPE guidelines on Corporate Governance.</p>	<p>The gap between the 294th meeting held on 12.09.2016 and 295th meeting held on 14.12.2016 was more than 3 months. As per DPE guidelines in Corporate Governance the time gap between any two meetings should not be more than 3 months. Para 2.2 of the DPE guidelines states that every listed CPSE shall follow SEBI guidelines on Corporate Governance. In addition, they shall follow those provisions in DPE guidelines which do not exist in the SEBI guidelines and also do not contradict any of the provisions of the SEBI Guidelines.</p> <p>Though there was non-compliance of DPE guidelines, the Company has complied with Reg. 17(2) of the SEBI (Listing Obligations and Disclosure Requirements) Regulation, 2015, where the time gap can be maximum 120 days between any two meetings.</p>
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For National Aluminium Company Limited

**(Dr. T. K. Chand)**  
Chairman-cum-Managing Director



## INDEPENDENT AUDITORS' REPORT

### TO THE MEMBERS OF NATIONAL ALUMINIUM COMPANY LIMITED

#### Report on the Standalone Ind AS Financial Statements

We have audited the accompanying standalone Ind AS financial statements of **National Aluminium Company Limited** ("the Company"), which comprises the Balance Sheet as at 31st March 2017, and the Statement of Profit and Loss (including Other Comprehensive Income), the Cash Flow Statement and the Statement of Changes in Equity for the year then ended, and a summary of significant accounting policies and other explanatory information.

#### Management's Responsibility for the Standalone Ind AS Financial Statements

The Company's board of directors is responsible for the matters stated in section 134(5) of the Companies Act 2013 ("the Act") with respect to the preparation of these standalone Ind AS financial statements that give a true and fair view of the financial position, financial performance including other comprehensive income, cash flows and changes in equity of the Company in accordance with the accounting principles generally accepted in India, including the Indian Accounting Standards (Ind AS) prescribed under section 133 of the Act read with relevant rules issued thereunder.

This responsibility also includes the maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the Company and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the standalone Ind AS financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

#### Auditors' Responsibility

Our responsibility is to express an opinion on these standalone Ind AS financial statements based on our audit.

We have taken into account the provisions of the Act, the accounting and auditing standards and matters, which are required to be included in the audit report under the provisions of the Act and the Rules made thereunder.

We conducted our audit of the standalone Ind AS financial statements in accordance with the Standards on Auditing specified under section 143(10) of the Act. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the standalone Ind AS financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and the disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal financial control relevant to the company's preparation of financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by company's directors, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the standalone Ind AS financial statements.

#### Opinion

In our opinion and to the best of our information and according to the explanations given to us, the aforesaid standalone Ind AS financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India including Ind AS, of the financial position of the Company as at 31<sup>st</sup> March, 2017, and its financial performance including other comprehensive income, its cash flows and the changes in equity for the year ended on that date.

#### Other Matter

The comparative financial information of the Company for the year ended 31<sup>st</sup> March 2016 and the transition date opening balance sheet as at 1<sup>st</sup> April 2015 included in these standalone Ind AS financial statements, are based on the previously issued statutory financial statements for the year ended 31<sup>st</sup> March 2016 and 31<sup>st</sup> March 2015 respectively, prepared in accordance with the Companies (Accounting Standards) Rules, 2006 and auditors expressing unmodified opinion thereon in their audit reports dated 28<sup>th</sup> May 2016 and 30<sup>th</sup> May 2015 respectively.



Those standalone financial statements have been adjusted for the differences in the accounting principles adopted by the Company on transition to the Ind AS, which have been audited by us.

Our opinion is not modified in respect of this matter.

### Report on Other Legal and Regulatory Requirements

1. As required by the Companies (Auditor's Report) Order, 2016 ("the Order") issued by the Central Government of India in terms of section 143(11) of the Act, we give in Annexure "A" to this report, a statement on the matters specified in paragraphs 3 and 4 of the Order.
2. In compliance to directions of the Comptroller and Auditor General of India u/s.143(5) of the Act, we give in Annexure "B" to this report a statement on the matters specified therein.
3. As required by section 143(3) of the Act we report that:
  - a. We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
  - b. In our opinion, proper books of account as required by law have been kept by the Company so far as it appears from our examination of those books.
  - c. The Balance Sheet, the Statement of Profit and Loss, the Cash Flow Statement and Statement of Changes in Equity dealt with by this Report are in agreement with the books of account.
  - d. In our opinion, the aforesaid standalone Ind AS financial statements comply with the Indian Accounting Standards prescribed under section 133 of the Act read with relevant rules made thereunder.
  - e. Section 164(2) of the Act regarding disqualification of directors is not applicable to the Company by virtue of Notification No. G.S.R. 463(E) dated 05.06.2015 issued by the Ministry of corporate Affairs, Govt. of India.
  - f. With respect to the adequacy of the internal financial controls over financial reporting of the Company and the operating effectiveness of such controls, refer to our separate report in Annexure "C".
  - g. With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, in our opinion and to the best of our information and according to the explanations given to us:
    - i. the Company has disclosed the impact of pending litigations on its financial position in its standalone Ind AS financial statements – Refer Note 26 to the standalone Ind AS financial statements;
    - ii. the Company did not have any long-term contracts including derivative contracts for which there were any material foreseeable losses;
    - iii. there has been no delay in transferring amounts, required to be transferred to the Investor Education and Protection Fund by the Company; and
    - iv. the Company has provided requisite disclosures in its standalone Ind AS financial statements as to holdings as well as dealings in Specified Bank Notes during the period from 8th November, 2016 to 30th December, 2016 - Refer Note 28 to the standalone Ind AS financial statements. However, as stated in the said note and as represented to us by the Management, amounts aggregating to Rs.81,000/- and Rs.9,000/- respectively have been received and utilized in respect transactions which are not permitted.

#### For ABP & Associates

Chartered Accountants  
FRN – 315104E

(CA Lalit K. Patangia)  
Partner  
Membership No.053971

Place : Bhubaneswar  
Dated : 27th May, 2017

#### For Guha Nandi & Co.

Chartered Accountants  
FRN – 302039E

(CA Dr. B. S. Kundu)  
Partner  
Membership No.051221



## ANNEXURE – A

## ANNEXURE TO THE INDEPENDENT AUDITORS' REPORT ON STANDALONE IND AS FINANCIAL STATEMENTS FOR THE YEAR ENDED 31<sup>ST</sup> MARCH 2017 OF NATIONAL ALUMINIUM COMPANY LIMITED

### (Referred to in paragraph 1 under the heading of "Report on Other Legal and Regulatory Requirements" of our Report of even date)

- i) (a) The Company is maintaining proper records showing full particulars, including quantitative details and situation of its property, plant and equipment including intangible assets.
- (b) All movable assets of the Company are physically verified by the management every year. The frequency of verification, in our opinion, is reasonable. No material discrepancies were noticed on such verification conducted during the year;  
Non-movable assets have been physically verified by the management at an interval of three years, which, in our opinion, is reasonable having regard to the size and nature of assets of the Company;  
No material discrepancies between book records and physical assets have been noticed;
- (c) According to the information and explanations given to us and on the basis of our examination of the records of the Company the title deeds of immovable properties are held in the name of the Company. Out of 8022.63 acres of freehold land and 9162.65 acres of leasehold land held by the Company, title/lease deeds are not yet executed in respect of 66.92 acres of freehold and 1744.63 acres of leasehold land respectively. However, the Company has been permitted by the concerned authorities to carry on its operation on the said land. Registration formalities in respect of office space for 6459 sqft. in Kolkata is also not completed.
- ii) Inventories, except stocks relating to expansion project, stocks lying with third parties and stocks-in-transit, have been physically verified during the year by firms of Chartered Accountants appointed by the management for this purpose. The frequency of verification is reasonable. The discrepancies noticed on physical verification between physical stocks and book records in case of shortages have been properly dealt with in the books of accounts while excesses have been ignored;
- iii) The Company has not granted any loans, secured or unsecured, to companies, firms, limited liability partnerships or other parties covered in the register maintained under section 189 of the Companies Act, 2013. Consequently, clauses (iii) (a), (b) & (c) of paragraph 3 of the Order are not applicable;
- iv) Section 185 of the Act regarding loans to directors is not applicable to the Company by virtue of Notification No. G.S.R. 463(E) dated 05.06.2015 issued by the Ministry of corporate Affairs, Govt. of India. In our opinion and according to the information and explanations given to us, the Company has complied with the provisions of section 186 of the Act with respect to the loans and investments made.
- v) The Company has not accepted any deposits from the public.
- vi) We have broadly reviewed the books and records maintained by the Company as specified by the Central Government for the maintenance of cost records under section 148(1) of the Companies Act, 2013 in respect of manufacturing activities and are of the opinion that prima facie, the prescribed accounts and records have been made and maintained. We have, however, not made a detailed examination of the records with a view to determine whether they are accurate and complete.
- vii) (a) According to the information and explanations given to us and on the basis of our examination of the records of the Company, in our opinion, the Company is generally regular in depositing undisputed statutory dues including provident fund, employees' state insurance, income tax, sales tax, service tax, duty of customs, duty of excise, value added tax, cess, electricity duty and other material statutory dues with the appropriate authorities and there are no undisputed statutory dues as at 31st March, 2017 outstanding for a period of more than six months from the date they became payable.
- (b) According to the information and explanations given to us, following statutory dues have not been deposited by the Company on account of disputes:

Name of the Statute	Nature of Dues	Amount disputed (₹in crore)	Amount deposited (₹in Crore)	Forum where disputes are pending
Sales Tax	Sales Tax	254.13	52.47	Commissioner
		72.33	31.78	Tribunal
		101.36	4.67	High Court
		<b>427.82</b>	<b>88.92</b>	
Entry Tax	Entry Tax	134.80	40.50	Commissioner
		73.89	37.01	Tribunal
		82.64	22.48	High Court
		<b>291.33</b>	<b>99.99</b>	



Name of the Statute	Nature of Dues	Amount disputed (₹in crore)	Amount deposited (₹in Crore)	Forum where disputes are pending
Central Excise Act, 1944	Excise Duty	2.57	0.06	Commissioner
		99.75	2.91	Tribunal
		0.10	0.03	High Court
		<b>102.42</b>	<b>3.00</b>	
Service Tax	Service tax	2.28	0.00	Commissioner
		0.04	0.00	Tribunal
		<b>2.32</b>	<b>0.00</b>	
Customs Act, 1962	Custom Duty	5.04	0.00	Commissioner
		46.96	0.13	Tribunal
		<b>52.00</b>	<b>0.13</b>	
Income Tax Act, 1961	Income Tax	390.46	196.16	Commissioner
		375.56	446.74	Tribunal
		31.92	52.14	High Court
		<b>797.94</b>	<b>695.04</b>	
Odisha Stamps Act	Stamp duty	<b>204.53</b>	<b>0.00</b>	High Court
Road Tax	Road Tax	0.21	0.00	Commissioner
		2.44	0.00	High Court
		<b>2.65</b>	<b>0.00</b>	
	<b>Total:</b>	<b>1881.01</b>	<b>887.08</b>	

- viii) Except bill discounting arrangement with banks, the Company does not have any loans or borrowings from any financial institution, banks, government or debenture holders. The Company has not defaulted in repayment of the loans obtained under the bill discounting facility.
- ix) The Company did not raise any money by way of initial public offer or further public offer (including debt instruments) and term loans during the year.
- x) According to the information and explanations given to us, no fraud by the Company or any material fraud on the Company by its officers or employees has been noticed or reported during the year.
- xi) Section 197 of the Act regarding managerial remuneration is not applicable to the Company by virtue of Notification No. G.S.R. 463(E) dated 05.06.2015 issued by the Ministry of corporate Affairs, Govt. of India.
- xii) In our opinion and according to the information and explanations given to us, the Company is not a nidhi company.
- xiii) According to the information and explanations given to us and based on our examination of the records of the Company, transactions with the related parties are in compliance with sections 177 and 188 of the Companies Act, 2013 where applicable and details of such transactions have been disclosed in the financial statements as required by the applicable accounting standards.
- xiv) According to the information and explanations given to us and based on our examination of the records, the Company has not made any preferential allotment or private placement of shares or fully or partly convertible debentures during the year.
- xv) According to the information and explanations given to us and based on our examination of the records, the Company has not entered into any non-cash transactions with any director or persons connected with him.
- xvi) The Company is not required to be registered under section 45-IA of the Reserve Bank of India Act 1934.

**For ABP & Associates**  
Chartered Accountants  
FRN – 315104E

(CA Lalit K. Patangia)  
Partner  
Membership No.053971

Place : Bhubaneswar  
Dated : 27th May, 2017

**For Guha Nandi & Co.**  
Chartered Accountants  
FRN – 302039E

(CA Dr. B. S. Kundu)  
Partner  
Membership No.051221

## ANNEXURE TO THE INDEPENDENT AUDITOR'S REPORT ON THE STANDALONE IND AS FINANCIAL STATEMENTS FOR THE YEAR ENDED 31<sup>ST</sup> MARCH 2017 OF NATIONAL ALUMINIUM COMPANY LIMITED

(Referred to in paragraph 2 under the heading of  
"Report on Other Legal and Regulatory Requirements" of our Report of even date)

### Report on the directions under section 143(5) of the Companies Act, 2013 by the Comptroller & Auditor General of India

According to the information and explanations given to us by the management and on the basis of our examination of books and records of the Company, we report that:

1. The Company has clear title/lease deeds for freehold and leasehold land respectively wherever the title/lease deeds are executed. There are 66.92 acres of freehold and 1744.63 acres of lease hold land out of 8022.63 acres of freehold and 9162.65 acres of lease hold land in respect of which the title/lease deeds are not yet executed. However, the Company has been permitted by the concerned authorities to carry on its operation on the said land.
2. There are 11 cases of write-off of advances, debtors and claims amounting to Rs. 18.40 lacs as detailed below. The reason of write-off, as explained to us, is that these are old balances lying unadjusted / unrealized for a long time, have become time-barred and chances of recovery / adjustments are remote.

Types of write off / waiver	No of cases	Amount in Rs. Lacs
Advances	4	2.80
Debtors	3	0.10
Claims	4	15.50
<b>Total</b>	<b>11</b>	<b>18.40</b>

3. (a) Proper records are maintained for inventories lying with third parties.  
(b) The Company has not received any asset as gift/grant(s) from Government or other authorities during the year.

**For ABP & Associates**  
Chartered Accountants  
FRN – 315104E

(CA Lalit K. Patangia)  
Partner  
Membership No.053971

Place : Bhubaneswar  
Dated : 27th May, 2017

**For Guha Nandi & Co.**  
Chartered Accountants  
FRN – 302039E

(CA Dr. B. S. Kundu)  
Partner  
Membership No.051221



## ANNEXURE TO THE INDEPENDENT AUDITOR'S REPORT OF EVEN DATE ON THE STANDALONE IND AS FINANCIAL STATEMENTS FOR THE YEAR ENDED 31<sup>ST</sup> MARCH 2017 OF NATIONAL ALUMINIUM COMPANY LIMITED

### Report on the Internal Financial Controls under Clause (i) of Sub-section 3 of Section 143 of the Companies Act, 2013 ("the Act")

We have audited the internal financial controls over financial reporting of **NATIONAL ALUMINIUM COMPANY LIMITED** ("the Company") as of March 31, 2017 in conjunction with our audit of the standalone Ind AS financial statements of the Company for the year ended on that date.

#### Management's Responsibility for Internal Financial Controls

The Company's management is responsible for establishing and maintaining internal financial controls based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India (ICAI). These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Companies Act, 2013.

#### Auditors' Responsibility

Our responsibility is to express an opinion on the Company's internal financial controls over financial reporting based on our audit. We conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting (the "Guidance Note") and the Standards on Auditing, issued by ICAI and deemed to be prescribed under section 143(10) of the Companies Act, 2013, to the extent applicable to an audit of internal financial controls, both applicable to an audit of Internal Financial Controls and, both issued by the Institute of Chartered Accountants of India. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls over financial reporting was established and maintained and if such controls operated effectively in all material respects.

Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls system over financial reporting and their operating effectiveness. Our audit of internal financial controls over financial reporting included obtaining an understanding of internal financial controls over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of financial statements, whether due to fraud or error. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the Company's internal financial controls system over financial reporting.

#### Meaning of Internal Financial Controls Over Financial Reporting

A company's internal financial control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal financial control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of





the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

#### **Inherent Limitations of Internal Financial Controls Over Financial Reporting**

Because of the inherent limitations of internal financial controls over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls over financial reporting to future periods are subject to the risk that the internal financial control over financial reporting may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

#### **Opinion**

In our opinion, the Company has, in all material respects, an adequate internal financial controls system over financial reporting and such internal financial controls over financial reporting were operating effectively as at March 31, 2017, based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India.

**For ABP & Associates**  
Chartered Accountants  
FRN – 315104E

(CA Lalit K. Patangia)  
Partner  
Membership No.053971

Place : Bhubaneswar  
Dated : 27<sup>th</sup> May, 2017

**For Guha Nandi & Co.**  
Chartered Accountants  
FRN – 302039E

(CA Dr. B. S. Kundu)  
Partner  
Membership No.051221



## COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 143(6)(b) OF THE COMPANIES ACT, 2013 ON THE FINANCIAL STATEMENTS OF NATIONAL ALUMINIUM COMPANY LIMITED, BHUBANESWAR FOR THE YEAR ENDED 31 MARCH 2017.

The preparation of financial statements of National Aluminium Company Limited for the year ended 31 March 2017 in accordance with the financial reporting framework prescribed under the Companies Act, 2013 (Act) is the responsibility of the management of the company. The statutory auditors appointed by the Comptroller and Auditor General of India under section 139(5) of the Act are responsible for expressing opinion on the financial statements under section 143 of the Act based, on independent audit in accordance with standards on auditing prescribed under section 143(10) of the Act. This is stated to have been done by them vide their Audit Report dated 27 May 2017.

I, on the behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit under section 143(6)(a) of the Act of the financial statements of National Aluminium Company Limited for the year ended 31 March 2017. This supplementary audit has been carried out independently without access to the working papers of the statutory auditors and is limited primarily to inquiries of the statutory auditors and company personnel and a selective examination of some of the accounting records. On the basis of my audit nothing significant has come to my knowledge which would give rise to any comment upon or supplement to statutory auditors' report.

**For and on the behalf of the  
Comptroller & Auditor General of India**

**(Praveer Kumar)  
Principal Director of Commercial Audit  
& Ex-officio Member Audit Board-I  
Kolkata**

**Place : Kolkata**

**Date : 22 June 2017**



## Standalone Financial Statements for the year 2016-17

# NATIONAL ALUMINIUM COMPANY LIMITED



## Balance Sheet as at March 31, 2017

Amount in Rs. Crores

Particulars	Notes	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Assets</b>				
<b>(1) Non-current assets</b>				
(a) Property, plant and equipment	6	7,018.63	6,457.07	6,588.65
(b) Capital work-in-progress	7	514.65	656.30	546.12
(c) Intangible assets	8	125.80	138.61	136.21
(d) Intangible assets under development	9	51.35	31.40	31.18
(e) Financial assets				
(i) Investments	10	39.55	944.36	1.04
(ii) Trade receivables	11	-	-	-
(iii) Loans	12	80.60	107.33	107.35
(iv) Other financial assets	13	10.77	8.04	5.99
(f) Other non-current assets	15	1,004.51	1,023.43	885.49
<b>Total non-current assets</b>		<b>8,845.86</b>	<b>9,366.54</b>	<b>8,274.03</b>
<b>(2) Current assets</b>				
(a) Inventories	16	1,155.93	1,055.01	1,103.36
(b) Financial assets				
(i) Investments	10	1,221.13	66.00	1,021.06
(ii) Trade receivables	11	184.25	235.21	120.82
(iii) Cash and cash equivalents	17	24.83	654.42	3.68
(iv) Bank balances other than (iii) above	17	2,262.40	4,448.73	4,797.30
(v) Loans	12	36.70	30.20	38.61
(vi) Other financial assets	13	156.49	156.74	156.51
(c) Current tax assets (Net)	14	34.12	102.92	127.77
(d) Other current assets	15	579.94	594.42	608.46
<b>Total current assets</b>		<b>5,655.79</b>	<b>7,343.65</b>	<b>7,977.57</b>
<b>Total assets</b>		<b>14,501.65</b>	<b>16,710.19</b>	<b>16,251.60</b>
<b>Equity and liabilities</b>				
<b>(1) Equity</b>				
(a) Equity share capital	18	966.46	1,288.62	1,288.62
(b) Other equity	19	9,239.33	11,906.13	11,634.99
<b>Total equity</b>		<b>10,205.79</b>	<b>13,194.75</b>	<b>12,923.61</b>
<b>Liabilities</b>				
<b>(2) Non-current liabilities</b>				
(a) Financial liabilities				
(i) Trade payables	21	19.61	16.30	19.82
(ii) Other financial liabilities	22	2.36	1.58	3.07
(b) Provisions	23	328.11	301.12	325.48
(c) Deferred tax liabilities (Net)	24	1,245.58	1,164.11	1,115.29
(d) Other non-current liabilities	25	48.27	50.38	42.42
<b>Total non-current liabilities</b>		<b>1,643.93</b>	<b>1,533.49</b>	<b>1,506.08</b>
<b>(3) Current liabilities</b>				
(a) Financial liabilities				
(i) Borrowings	20	51.09	-	-
(ii) Trade payables	21	844.46	639.56	566.57
(iii) Other financial liabilities	22	469.10	402.35	475.27
(b) Provisions	23	117.07	87.15	87.31
(c) Other current liabilities	25	1,170.21	852.89	692.76
<b>Total current liabilities</b>		<b>2,651.93</b>	<b>1,981.95</b>	<b>1,821.91</b>
<b>Total liabilities</b>		<b>4,295.86</b>	<b>3,515.44</b>	<b>3,327.99</b>
<b>Total equity and liabilities</b>		<b>14,501.65</b>	<b>16,710.19</b>	<b>16,251.60</b>

See accompanying notes to the financial statements

For and on behalf of Board of Directors

(CS. K N Ravindra)  
Executive Director-  
Company Secretary

(K C Samal)  
Director (Finance)  
DIN: 03618709

(Dr. T K Chand)  
Chairman-Cum-Managing Director  
DIN: 01710900

In terms of our attached report of even date

For ABP & Associates  
Chartered Accountants  
FRN - 315104E

(CA Lalit K. Patangia)  
Partner (M No.: 053971)

For Guha Nandi & Co.  
Chartered Accountants  
FRN - 302039E

(CA Dr. B S Kundu)  
Partner (M No.: 051221)

Place : Bhubaneswar  
Date : May 27, 2017

## Statement of Profit and Loss for the period ended March 31, 2017

Amount in Rs. Crores

	Notes	Year ended 31.03.2017	Year ended 31.03.2016
I Revenue from operations	29	8,050.02	7,269.23
II Other Income	30	408.27	605.13
III Total Income (I + II)		8,458.29	7,874.36
<b>IV EXPENSES</b>			
(a) Cost of raw materials consumed	31	1,181.79	1,104.41
(b) Cost of power and fuel consumed	31	2,212.53	1,864.61
(c) Changes in inventories of finished goods and work-in-progress	32	(96.59)	(8.99)
(d) Employee benefits expenses	33	1,537.44	1,398.33
(e) Finance costs	34	2.69	3.27
(f) Depreciation and amortisation expenses	35	480.36	426.12
(g) Excise duty	36	506.98	452.27
(h) Other expenses	37	1,628.22	1,499.14
<b>Total expenses (IV)</b>		<b>7,453.42</b>	<b>6,739.16</b>
V Profit/(loss) before exceptional items and tax (III - IV)		1,004.87	1,135.20
VI Exceptional Items	38	40.15	(53.45)
VII Profit/(loss) before tax (V - VI)		964.72	1,188.65
<b>VIII Tax Expense</b>			
(1) Current tax	39	219.52	366.93
(2) Deferred tax	39	76.67	34.61
IX Profit/(loss) for the period (VII - VIII)		668.53	787.11
<b>X Other comprehensive income</b>			
(i) Items that will not be reclassified to profit or loss			
- Remeasurement gains / (losses) on defined benefit plans		13.88	41.06
(ii) Income tax relating to items that will not be reclassified to profit or loss	39	4.80	14.21
<b>Other comprehensive income for the period(net of tax) (X)</b>		9.08	26.85
XI Total comprehensive income for the period (IX+X) (comprising profit/(loss) and other comprehensive income for the period)		677.61	813.96
<b>XII Earnings per equity share:</b>			
(1) Basic (in Rs.)	41	2.98	3.05
(2) Diluted (in Rs.)	41	2.98	3.05

See accompanying notes to the financial statements

For and on behalf of Board of Directors

(CS. K N Ravindra)  
Executive Director-  
Company Secretary

(K C Samal)  
Director (Finance)  
DIN: 03618709

(Dr. T K Chand)  
Chairman-Cum-Managing Director  
DIN: 01710900

In terms of our attached report of even date

For ABP & Associates  
Chartered Accountants  
FRN - 315104E

(CA Lalit K. Patangia)  
Partner (M No.: 053971)

For Guha Nandi & Co.  
Chartered Accountants  
FRN -302039E

(CA Dr. B S Kundu)  
Partner (M No.: 051221)

Place : Bhubaneswar  
Date : May 27,2017



## Statement of changes in equity

for the period ended March 31, 2017

Amount in Rs. Crores

A. Equity share capital	
Balance as at 01.04.2015	1,288.62
Changes in equity share capital during the year	-
Balance as at 31.03.2016	1,288.62
Changes in equity share capital during the year	-
Buy-back of equity shares	(322.16)
Balance as at 31.03.2017	966.46

B. Other equity		Reserves and surplus		
Other equity	Capital redemption reserve	General reserve	Retained earnings	Total
Balance as at 01.04.2015	-	11,461.10	173.89	11,634.99
Profit for the year	-	-	787.11	787.11
Other comprehensive income (net of taxes)	-	-	26.85	26.85
<b>Total comprehensive income for the year</b>	-	-	<b>813.96</b>	<b>813.96</b>
Final dividend for previous year	-	-	(128.86)	(128.86)
Tax on final dividend for previous year	-	-	(26.22)	(26.22)
Interim dividend for the year	-	-	(322.16)	(322.16)
Tax on interim dividend for the year	-	-	(65.58)	(65.58)
Transfer to general reserve	-	-	-	-
Transfer of Ind AS transition reserve to profit and loss	-	-	-	-
Balance as at 31.03.2016	-	11,461.10	445.03	11,906.13
Profit for the year	-	-	668.53	668.53
Other comprehensive income (net of taxes)	-	-	9.08	9.08
<b>Total comprehensive income for the year</b>	-	-	<b>677.61</b>	<b>677.61</b>
Premium on Buy-back of equity shares	-	(2,512.81)	-	(2,512.81)
Expenses on Buy-back of equity shares	-	(5.72)	-	(5.72)
Transfer of general reserve to Capital redemption reserve	322.16	(322.16)	-	-
Final dividend for previous year	-	-	(144.97)	(144.97)
Tax on final dividend for previous year	-	-	(29.51)	(29.51)
Interim dividend for the year	-	-	(541.22)	(541.22)
Tax on interim dividend for the year	-	-	(110.18)	(110.18)
Balance as at 31.03.2017	322.16	8,620.41	296.76	9,239.33

See accompanying notes to the financial statements

For and on behalf of Board of Directors

**(CS. K N Ravindra)**  
Executive Director-  
Company Secretary

**(K C Samal)**  
Director (Finance)  
DIN: 03618709

**(Dr. T K Chand)**  
Chairman-Cum-Managing Director  
DIN: 01710900

In terms of our attached report of even date

**For ABP & Associates**  
Chartered Accountants  
FRN - 315104E

**(CA Lalit K. Patangia)**  
Partner (M No.: 053971)

**For Guha Nandi & Co.**  
Chartered Accountants  
FRN -302039E

**(CA Dr. B S Kundu)**  
Partner (M No.: 051221)

Place : Bhubaneswar  
Date : May 27, 2017

## Cash Flow Statement for the year ended March 31, 2017

Amount in Rs. Crores

	Year ended 31.03.2017	Year ended 31.03.2016
<b>A. Cash flows from operating activities</b>		
<b>Profit for the period</b>	<b>668.53</b>	<b>787.11</b>
Adjustments for:		
Income tax expense recognised in profit or loss	296.19	401.54
Finance costs recognised in profit or loss	2.69	3.27
Interest income recognised in profit or loss	(292.64)	(466.89)
Dividend income recognised in profit or loss	(8.78)	(5.19)
Net (gain) / loss on sale of non-current investments	-	(0.70)
Net (gain) / loss on disposal of property, plant and equipment	(0.10)	1.11
Net (gain) / loss arising on financial assets mandatorily measured at fair value through profit or loss	(77.81)	(74.49)
Impairment loss recognised on other assets	56.93	63.01
Inventories of stores, spares written off	27.96	9.61
Depreciation and amortisation of non-current assets	480.36	426.12
Net foreign exchange (gain)/loss	7.90	(5.98)
	<b>1,161.23</b>	<b>1,138.52</b>
Movements in working capital:		
(Increase) / decrease in inventories	(129.56)	37.87
(Increase) / decrease in trade receivables	50.96	(114.39)
(Increase) / decrease in loans and other financial asset	17.75	6.15
(Increase) / decrease in other assets	(49.52)	(62.30)
Increase / (decrease) in trade payables	200.31	75.45
Increase / (decrease) in other financial liabilities	21.25	(23.29)
Increase / (decrease) in other liabilities	315.21	168.09
Increase / (decrease) in provisions	66.74	14.49
<b>Cash (used in) / generated from operations</b>	<b>1,654.37</b>	<b>1,240.59</b>
Income taxes paid	<b>(218.43)</b>	<b>(359.78)</b>
<b>Net cash (used in) / generated by operating activities</b>	<b>1,435.94</b>	<b>880.81</b>
<b>B. Cash flows from investing activities</b>		
Payments to acquire financial assets	(184.00)	(66.00)
Proceeds from sale of financial assets	49.96	152.97
Payments to acquire equity in joint ventures and associates	(38.47)	(0.04)
Proceeds from redemption of term deposits with banks	2,183.02	348.67
Dividends received from other investments	8.78	5.19
Interest received from banks and others	292.64	466.89
Payments for property, plant and equipment (including capital advances)	(757.98)	(555.30)
Proceeds from disposal of property, plant and equipment	16.53	4.85
Payments for other intangible assets	(20.14)	(43.27)
<b>Net cash (used in) / generated by investing activities</b>	<b>1,550.34</b>	<b>313.96</b>
<b>C. Cash flows from financing activities</b>		
Payments for buy-back of equity shares	(2,834.97)	-
Payments for share buy-back costs	(5.72)	-
Proceeds from short term borrowings	51.09	-
Finance cost paid	(0.39)	(1.21)
Dividends paid on equity shares	(686.19)	(451.02)
Tax on dividends paid on equity shares	(139.69)	(91.80)
<b>Net cash (used in) / generated by financing activities</b>	<b>(3,615.87)</b>	<b>(544.03)</b>
<b>Net increase or (decrease) in cash or cash equivalents</b>	<b>(629.59)</b>	<b>650.74</b>
<b>Cash and cash equivalents at the beginning of the year</b>	<b>654.42</b>	<b>3.68</b>
<b>Cash and cash equivalents at the end of the year</b>	<b>24.83</b>	<b>654.42</b>
See accompanying notes to the financial statements		

Note: Figures in the brackets are cash outflow/income as the case may be.

(CS. K N Ravindra)  
Executive Director-  
Company Secretary

For and on behalf of Board of Directors

(K C Samal)  
Director (Finance)  
DIN: 03618709

(Dr. T K Chand)  
Chairman-Cum-Managing Director  
DIN: 01710900

In terms of our attached report of even date

For ABP & Associates  
Chartered Accountants  
FRN - 315104E

(CA Lalit K. Patangia)  
Partner (M No.: 053971)

For Guha Nandi & Co.  
Chartered Accountants  
FRN - 302039E

(CA Dr. B S Kundu)  
Partner (M No.: 051221)

Place : Bhubaneswar  
Date : May 27, 2017



## NOTES TO ACCOUNTS

### Note .1 General Information

National Aluminium Company Limited is a Navaratna Company, a Central Public Sector Enterprise (CPSE) under Ministry of Mines, Government of India, incorporated under the relevant provisions of the Companies Act and is listed in the stock exchanges in India. The Company is engaged in the business of manufacturing and selling of Alumina and Aluminium. The Company is operating a 22.75 lakh TPA Alumina Refinery plant located at Damanjodi in Koraput district of Odisha and 4.60 lakh TPA Aluminium Smelter located at Angul, Odisha. The Company has a captive bauxite mines adjacent to refinery plant to feed the bauxite requirement of Alumina Refinery and also a 1200 MW captive thermal power plant adjacent to Smelter plant to meet the power consumption of Smelter. Besides, the Company is also operating four wind power plants with total capacity of 198.40 MW located in the state of Andhra Pradesh (Gandikota), Rajasthan (Jaisalmer & Devikot) and Maharashtra (Sangli) to harness the renewable energy and to comply with its Renewable Purchase Obligation.

### Note.2 Statement of Compliance:

In accordance with the notification issued by the Ministry of Corporate Affairs, the Company has adopted Indian Accounting Standards (referred to as "Ind AS") notified under the Companies (Indian Accounting Standards) Rules, 2015 with effect from 1 April, 2016, with a transition date of 1st April 2015. All the notified accounting standards which are applicable to the Company have been taken into consideration and complied without any exception while preparing the first Ind AS compliant financial statements of the Company.

### Note.3 Significant Accounting Policies:

#### 3.1 Basis of preparation

The financial statements of the Company have been prepared in accordance with Ind AS and relevant provisions of the Companies Act, 2013.

The financial statements have been prepared on historical cost basis, except for certain financial instruments that are measured at fair values at the end of each reporting period, as explained in the accounting policies below.

All assets and liabilities have been classified as current or non-current as per Company's operating cycle and other criteria set out in Schedule-III of the Companies Act 2013. Based on the nature of business, the Company has ascertained its operating cycle as 12 months for the purpose of current or non-current classification of assets and liabilities.

#### 3.2 Use of estimates:

These financial statements have been prepared based on estimates and assumptions in conformity with the recognition and measurement principles of Ind AS.

Estimates and underlying assumptions are reviewed on an ongoing basis and revisions if any in such estimates are accounted appropriately in the year of revision.

Key sources of estimation uncertainty at the reporting date, which may cause a material adjustment to the carrying amounts of assets and liabilities for future years are stated in Note No.4.

#### 3.3 Investments in associates and joint ventures

An associate is an entity over which the Company has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

Investment in associate and joint ventures are measured at cost in accordance with Ind AS 109 – Financial Instruments.

Investment in associate and joint ventures are subject to impairment wherever there is indication of negative reserve in the accounts of associates/ JV Companies. However, such impairment is limited to the value of investment.

#### 3.4 Property, Plant and Equipment

Property, plant and equipment, other than freehold lands, held for use in the production and/or supply of goods or services, or for administrative purposes, are stated at cost, less accumulated depreciation and accumulated impairment losses. Freehold lands, unless impaired, are stated at cost.





### 3.5 Initial Measurement

The initial cost comprises purchase price, non-refundable purchase taxes, other directly expenditure attributable to acquisition, borrowing cost, if any, incurred for bringing the assets to its location and condition necessary for it to be capable of operating in the manner intended by Management, and the initial estimates of the present value of any asset restoration obligation or obligatory decommissioning and dismantling costs.

Expenditure incurred on development of freehold land is capitalized as part of the cost of the land.

In case of self-constructed assets, cost includes the costs of all materials used in construction, direct labour, allocation of overheads and directly attributable borrowing costs, if any.

Spareparts having unit value of more than Rs.5 lakh that meets the criteria for recognition as Property, Plant and Equipment are recognised as Property, Plant and Equipment. Besides, spares of critical nature and irregular in use, which can be identified to a particular equipment and having unit value more than Rs.1 lakh is also recognised as Property, Plant and Equipment.

### 3.6 Subsequent expenditure

Expenditure on major inspection/maintenance or repairs including cost of replacing the parts of assets and overhaul costs where it is probable that future economic benefits associated with the expenditure will be available to the Company over a period of more than one year, are capitalised and the carrying amount of the identifiable parts so replaced is derecognised.

### 3.7 Capital work-in-progress

Assets in the course of construction for production and/or supply of goods or services or administrative purposes, or for which classification is not yet determined, are included under capital work in progress and are carried at cost, less any recognised impairment loss. Such capital work in progress, on completion, is transferred to the appropriate category of property, plant and equipment.

Expenses for assessment of new potential projects incurred till investment decision are charged to revenue. Expenditure incurred for projects after investment decisions are accounted for under capital work in progress and capitalized subsequently.

### 3.8 Depreciation and amortization

Depreciation on assets are provided on a straight line basis over their useful life of the asset, which has been determined considering the useful lives prescribed under Schedule II of the Companies Act, 2013 and technical estimations carried out by the Management.

Component of an item of property, Plant and Equipment with a cost that is significant in relation to the total cost of that item is depreciated separately if its useful life differs from the others components of the asset. The Company has chosen a benchmark of Rs. 1 Crore as significant value for identification of a separate component except Pot relining which is considered as a component of each electrolytic pot due to its inherent nature and useful life.

The residual value of plant and machinery, vehicles, mobile equipment and earth moving equipments, railway facilities, rolling stock, and residential quarters are maintained at 5% of the original cost and for all other assets, the residual value is considered as Nil.

The estimated useful lives are reviewed at each year end and the effect of change, if any, is accounted for prospectively.

Useful lives of the assets considered for depreciation are described hereunder:

- (a) Useful life of immovable property, plant and equipment at bauxite mines if exceeds the period up to which bauxite reserve is available at respective mines is limited to that period. Such assets are depreciated over the period up to which bauxite reserve is available.
- (b) Useful life of captive thermal power generation plant at Angul is considered as 30 years.
- (c) Useful life of Steam Power Plant (SPP) at Damanjodi is considered as 25 years.
- (d) Useful life of Red mud pond and Ash pond at Alumina Refinery and Ash ponds at captive power plant are based on their estimated remaining useful lives, evaluated on the basis of technical estimates made periodically.
- (e) Useful life of assets laid on leasehold land excluding assets of Bauxite mines are considered to be lower of balance lease period or the useful life of the asset and are depreciated accordingly.
- (f) Assets laid on land not owned by the Company are depreciated over a period of five years from the date on which the asset is capable of operating in the manner intended by the management unless a longer / shorter life can be justified.
- (g) Individual Assets costing Rs.10,000/- or less are depreciated fully in the year in which they are put to use.
- (h) Property plant and equipment other than mentioned above are subject to the following useful lives.



Sl.No.	Particulars of asset category(Property Plant & Equipment)	Range of useful life in years
1	Buildings	30-60
2	Plant and machinery	15-40
3	Vehicles	08 - 10
4	Furniture and fixtures	08 - 10
5	Computer equipment	03 - 06

### 3.9 Disposal of assets

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal is recognised in the statement of profit and loss.

### 3.10 Stripping costs:

Stripping costs in surface mining is recognized as an asset when they represent significantly improved access to ore provided all the following conditions are met:

- it is probable that the future economic benefit associated with the stripping activity will be realised;
- the component of the ore body for which access has been improved can be identified; and
- the costs relating to the stripping activity associated with the improved access can be reliably measured.

The stripping cost incurred during the production phase is added to the existing "stripping cost" asset to the extent the current period stripping ratio exceeds the planned stripping ratio.

The stripping activity asset is subsequently depreciated on a unit of production basis over the life of the identified component of the ore body that became more accessible as a result of the stripping activity and is then stated at cost less accumulated depreciation and any accumulated impairment losses.

### 3.11 Intangible Assets

#### 3.11.1 Intangible assets acquired separately

Intangible assets acquired are reported at cost less accumulated amortisation and accumulated impairment losses, if any. Intangible assets having finite useful life are amortised over their estimated useful lives. The estimated useful life and amortisation method are reviewed at the end of each annual reporting period, and the effect of any changes in estimate is accounted for on a prospective basis.

#### 3.11.2 Internally-generated intangible assets – research and development expenditure

Expenditure on research activities, except capital expenditure considered as Property, plant and equipment, is recognized as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development is recognised if, and only if, all the conditions stipulated in Ind AS 38 – Intangible Asset are met.

#### 3.11.3 Mining Rights

The costs of mining rights include amounts paid towards Net Present Value (NPV) and upfront money as determined by the regulatory authorities.

Cost of mining rights are amortised over the total estimated remaining commercial reserves of mining property and are subject to impairment review.

#### 3.11.4 Mines Development Expenses

Expenditure incurred for mines development prior to commercial production i.e., primary development expenditure other than land, buildings, plant and equipment is capitalised until the mining property is capable of commercial production.

#### 3.11.5 User Rights:

Amount of expenditure incurred in a cluster project having future economic benefits, with exclusive use of co-beneficiaries but without physical control on the assets are capitalized as user rights.

#### 3.11.6 Software

Operating software acquired separately (RDBMS, Sybase, ERP/SAP) are capitalized as software.



### 3.11.7 License and Franchise

Amount of expenditure incurred for obtaining license for use of technology is capitalized as Intangibles under the head "License and Franchise".

### 3.11.8 Derecognition of intangible assets

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, are recognised in the statement of profit and loss when the asset is derecognized.

### 3.11.9 Amortisation

The basis of amortization of intangible assets, based on useful life is as follows:

- Licenses in the nature of technical know-how for processing plants which are available for the useful life of the respective processing plants are amortized over a period of ten years.
- Software classified as intangible assets carries a useful life of 3 years.
- Mining Rights and Mines Development Expenses are amortized over the period of availability of reserves.
- User Right for cluster projects is amortized over a period of 10 years from the date of commissioning.

### 3.12 Impairment of tangible and intangible assets

At the end of each reporting period, the Company reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss, if any. If any such indication exists, the recoverable amount (i.e. higher of the fair value less cost to sell and the value-in-use) of the asset is estimated to determine the extent of impairment loss, if any. When it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit (CGU) to which the asset belongs. If the recoverable amount of an asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount and the difference between the carrying amount and recoverable amount is recognised as impairment loss in the statement of profit or loss.

### 3.13 Functional & Foreign Currencies

Items included in the financial statements are measured using the currency of the primary economic environment i.e Indian Rupee in which the Company operates. The Company's functional and reporting currency is Indian Rupees (INR). The financial statements are presented in Indian Rupees.

In preparing the financial statements, transactions in foreign currencies i.e currencies other than the entity's functional currency are recognised at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are translated at the rates prevailing at that date.

Exchange differences on monetary items are recognised in the statement of profit and loss in the period in which they arise.

### 3.14 Provisions and contingencies

#### 3.14.1 Provisions

Provisions are recognised when there is a present obligation (legal or constructive) as a result of a past event and it is probable ("more likely than not") that it is required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the estimated cash outflows to settle the present obligation, its carrying amount is the present value of those cash outflows. The discount rate used is a pre tax risk free return that reflects current market assessments of the time value of money in that jurisdiction and the risks specific to the liability.

#### (a) Restoration, rehabilitation and decommissioning

An obligation to incur restoration, rehabilitation and environmental costs arises when environmental disturbance is caused by the development or ongoing production of a mine and other manufacturing facilities. The Company has recognized the obligated restoration, rehabilitation and decommissioning liability as per statutory mandate.

Net present value of such costs are provided for and a corresponding amount is capitalised at the commencement of each project. These costs are charged to the statement of profit or loss over the life of the asset by way of depreciation and unwinding of the discounted liability. The cost estimates are reviewed periodically and are adjusted to reflect known developments which may have an impact on the cost estimates or life of operations. The cost of the related asset is adjusted for changes in the provision



due to factors such as updated cost estimates, changes in lives of operations, new disturbance and revisions of discount rates. The adjusted cost of the asset is depreciated prospectively over the lives of the assets to which they relate. The unwinding of the discount is shown as finance and other cost in the statement of profit or loss.

**(b) Environmental liabilities**

Environmental liabilities are recognized when the Company becomes obliged, legally or constructively to rectify environmental damage or perform remediation work.

**(c) Litigation**

Provision is recognised once it has been established that the Company has a present obligation based on consideration of the information which becomes available up to the date of reporting.

**3.14.2 Contingent Liabilities**

Contingent liabilities are possible obligations that arises from past events, the existence of which would be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Company. Contingent liabilities are disclosed in the financial statements unless the possibility of any outflow in settlement is remote.

**3.14.3 Contingent Assets**

Contingent assets are not recognized in the financial statement, but are disclosed where inflow of economic benefits is probable.

**3.15 Leases**

At the inception of a lease, the lease arrangement is classified as either a finance lease or an operating lease, based on the substance of the lease arrangement.

**3.15.1 Assets taken on finance lease**

Financial leases are those that transfer substantially all the risks and rewards incidental to ownership to the lessee.

Finance leases are capitalised at the commencement of lease, at the lower of the fair value of the property or the present value of the minimum lease payments. The corresponding liability to the lessor is included in the balance sheet as a finance lease obligation. Lease payments are apportioned between finance charges and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly against income over the period of the lease.

**3.15.2 Assets taken on operating lease**

Leases other than finance leases are operating leases, and the leased assets are not recognized in the Company's balance sheet. Upfront lease payments, if any, made under operating leases are recognized in the statement of profit and loss over the term of the lease. Rent and maintenance charges paid for assets/facilities taken on operating leases are charged to revenue in the period in which they arise.

**3.16 Inventories**

Inventory of raw material, including bulk material such as coal and fuel oil are valued at cost net of tax credit wherever applicable. Stores and spares other than those meeting the criteria for recognition as Property, Plant and Equipment are valued at cost net of tax credit wherever applicable.

Stores and spares (other than major spares considered as Property, Plant and Equipment) held but not issued for more than 5 years are valued at 5% of the cost.

Materials and other supplies held for use in the production (other than considered as non-moving) are not written down below cost, if the finished products in which they will be incorporated are expected to be sold at or above cost. These are stated below the cost at net realizable value if the finished products in which they are to be incorporated are sold below cost.

Cost of raw materials, stores and spares as stated above are determined on moving weighted average price.

Inventories of finished goods, semi-finished goods, intermediary products and work in process including process scrap are valued at lower of cost and net realizable value. Cost is generally determined at moving weighted average price of materials, appropriate share of labour and related overheads. Net realizable value is the estimated selling price in the ordinary course of business available on the reporting date less estimated cost necessary to make the sale.

Inventory of scraps internally generated are valued at netrealizable value.

**3.17 Trade receivable**

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. If collection is expected to be collected within a period of 12 months or less from the reporting date, they are classified as current assets otherwise as non-current assets.



Trade receivables are measured at their transaction price unless it contains a significant financing component or pricing adjustments embedded in the contract.

### 3.18 Financial Instruments

Financial assets and liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument. Financial assets and liabilities are initially measured at fair value. Transaction cost that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value measured on initial recognition of financial asset or financial liabilities.

#### 3.18.1 Financial assets

##### a) Cash or Cash Equivalent:

The Company considers all short term Bank deposits having a maturity period of three months or less as cash & cash equivalent. Term deposits in Bank with a maturity period of more than 3 months are considered as other Bank Balance.

##### b) Financial assets at amortized cost:

Financial assets are subsequently measured at amortized costs if the financial assets are held within a business model whose objective is to hold these assets in order to collect contractual cash flows and the contractual terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

##### c) Financial assets at Fair value through Other Comprehensive Income (OCI)

Financial assets are measured at fair value through other comprehensive income if these financial assets are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and the contractual terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

##### d) Financial assets at Fair value through Profit or loss

Financial assets are measured at fair value through profit or loss unless it is measured at amortized cost or at fair value through other comprehensive item on initial recognition. The transaction cost directly attributable to the acquisition of financial assets and liabilities at fair value through profit or loss are immediately recognized in the statement of profit or loss.

### 3.19 Financial liabilities

Trade and other payables are initially measured at transaction costs. Other financial liabilities are measured at amortized cost using the effective interest method.

### 3.20 De-recognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

### 3.21 Impairment of financial assets

At each reporting date, the Company assess whether the credit risk on a financial instrument has increased significantly since initial recognition.

If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses. If, the credit risk on that financial instrument has increased significantly since initial recognition, the Company measures the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses.

The amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date is recognised as an impairment gain or loss in the statement of profit and loss.

### 3.22 Derecognition of financial liability

The Company derecognises financial liabilities when, and only when, the Company's obligations are discharged, cancelled or expired.

### 3.23 Offsetting financial instruments

Financial assets and liabilities of the Company are offset and the net amount reported in the balance sheet, when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business.

### 3.24 Derivatives

Derivative instruments such as forward foreign exchange contracts are recognised at fair value at the date the derivative contracts



are entered into and are subsequently re-measured to their fair value at the end of each reporting period. The resulting gain or loss is recognised in statement of profit or loss immediately.

### 3.25 Borrowing cost

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for their intended use. All other borrowing cost is recognized in profit or loss in the period in which they are incurred.

### 3.25a Accounting for government grants

Government grants are recognized when there is reasonable assurance that the Company will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognised in the statement of profit and loss on a systematic basis over the periods in which the Company recognises as expenses the related costs for which the grants are intended to compensate. Government grants whose primary condition is that the Company should purchase, construct or otherwise acquire non-current assets are recognized in the balance sheet by setting up the grant as deferred income and are transferred to profit or loss on a systematic basis over the useful life of the related assets.

Other government grants (grants related to income) are recognized as income over the periods necessary to match them with the costs for which they are intended to compensate, on a systematic basis. Grants related to income are presented under other income in the statement of profit and loss.

### 3.26 Employee Benefits

#### 3.26.1 Short-term employee benefits

A liability is recognized for benefits accruing to employees in respect of wages and salaries, short term compensated absences etc. in the period the related service is rendered at the undiscounted amount of the benefits expected to be paid.

#### 3.26.2 Post-employment and long term employee benefits

##### a) Defined contribution plans

A defined contribution plan is plan under which the Company pays fixed contributions to a separate entity. Contributions to defined contribution retirement benefit plans are recognised as an expense when employees have rendered service entitling them for such contributions.

##### b) Defined benefit plans

For defined benefit plans, the cost of providing benefits is determined through actuarial valuation using the Projected Unit Credit Method, carried out at each balance sheet date. Re-measurement gains and losses of the net defined benefit liability are recognised immediately in other comprehensive income. The service cost, net of interest on the net defined benefit liability is treated as a net expense within employment costs.

Past service cost is recognised as an expense when the plan amendment or curtailment occurs or when any related restructuring costs or termination benefits are recognised.

The retirement benefit obligation recognised in the balance sheet represents the present value of the defined-benefit obligation as reduced by the fair value of plan assets.

##### c) Other long-term employee benefits

Liabilities recognised in respect of other long-term employee benefits are measured at the present value of the estimated future cash outflows expected to be made by the Company in respect of services provided by employees up to the reporting date. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit retirement plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to the statement of profit and loss in the period in which they arise. These obligations are valued annually by independent actuaries.

### 3.27 Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable. Revenues are reduced by the estimated rebates and other similar allowances.

#### 3.27.1 Sales of Goods

The Company derives revenue primarily from sale of alumina and aluminium products.

The Company recognizes revenue when all the following criteria are satisfied:

- (i) significant risks and rewards of ownership has been transferred to the customer;
- (ii) there is no continuing management involvement with the goods usually associated with ownership, nor effective control over the goods sold has been retained;



- (iii) the amount of revenue can be measured reliably;
- (iv) It is probable that the economic benefits associated with the transaction will flow to the Company
- (v) recovery of the consideration is assured reasonably.

### 3.27.2 Sale of Energy

Sale of wind power is recognised on the basis of energy transmitted to DISCOMs at the price notified by respective authorities. Sale of power from captive power plant is considered on the basis of quantity injected to state GRID excluding wheeling to Refinery but including inadvertent energy injection, at the price notified by appropriate authority.

Revenue from sale of energy is recognised if

- i. the amount of revenue can be measured reliably;
- ii. It is probable that the economic benefits associated with the transaction will flow to the Company
- iii. recovery of the consideration is assured reasonably.

### 3.27.3 Income from dividend and interest

#### a) Dividend

Dividends income from investments is recognised when the right to receive the dividend is established.

#### b) Interest

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Company and the amount of income can be measured reliably. Interest income is accrued on a time proportion basis, by reference to the principal outstanding and effective interest rate.

#### c) Income from Incentives from Government Agencies

Incentives from government agencies in the nature of duty draw back and merchandise export incentive (MEIS) on exports and incentives on generation of renewable sources of energy are recognized as per the relevant statute on compliance of the conditions provided thereunder.

### 3.28 Income Taxes

Tax expense represents the sum of current tax and deferred tax.

#### 3.28.1 Current taxes

Current tax expense is based on taxable profit for the year as per the Income Tax Act, 1961. Current tax liabilities (assets) for the current and prior period are measured at amounts expected to be paid (or recovered) using the tax rates and tax laws that have been enacted or substantively enacted by the end of reporting period and includes any adjustment to tax payable in respect of previous years.

#### 3.28.2 Deferred taxes

Deferred tax expense or income is recognized on temporary difference between the carrying amount of assets and liabilities in the financial statements and the corresponding tax base used in computation of taxable profits.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period. Tax relating to items recognized directly in other comprehensive income forms part of the statement of comprehensive income.

Deferred tax is provided on all temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and adjusted to the extent it has become probable that sufficient taxable profits will be available to allow the asset to be recovered

#### 3.29 Exceptional items

Exceptional items are items of income and expenses within profit or loss from ordinary activities but of such size, nature or incidence whose disclosure is felt necessary for better explanation of the performance of the Company.

#### 3.30 Restatement of material error / omissions

The value of errors and omissions is construed to be material for restating the opening balances of assets and liabilities and equity for the earliest prior period presented, if the sum total effect of earlier period income / expenses exceeds Rs.50 crore.

### Note No. 4 Critical accounting judgments and key sources of estimation uncertainty

The preparation of the financial statements requires management to make complex and/or subjective judgements, estimates and assumptions about matters that are inherently uncertain. These estimates and assumptions affect the reported amounts of assets and liabilities as well as disclosure of contingent liabilities and assets at the date of the financial statements and also revenues and expenses during the reported period.



The estimates and associated assumptions are based on past experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised.

#### 4.1 Critical judgments in applying accounting policies:

The following is the critical judgement, apart from those involving estimations that the management have made in the process of applying the Company's accounting policies and that have the most significant effect on the amounts recognised in the financial statements:

The management has decided that reporting of Company's financial assets at amortized cost would be appropriate in the light of its business model and have confirmed the Company's positive intention and ability to hold these financial assets to collect contractual cash flows.

#### 4.2 Key sources of estimation of uncertainty:

The following are the key assumptions concerning the future, and other key sources of estimation of uncertainty at the end of the reporting period that may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

##### 4.2.1 Impairment

Investments in Associates and other investments, loans and advances, property, plant and equipment and intangible assets are reviewed for impairment whenever events and changes in circumstances indicate that the carrying value may not be fully recoverable or at least annually.

Future cash flow estimates of Cash Generating Units which are used to calculate the asset's fair value are based on expectations about future operations primarily comprising estimates about production and sales volumes, commodity prices, reserves and resources, operating rehabilitations and restoration costs and capital expenditure.

##### 4.2.2 Useful lives of property, plant and equipment

The Company reviews the useful life of property, plant and equipment at the end of each reporting period. This reassessment may result in change in depreciation expense in future periods.

##### 4.2.3 Assessment of Mining Reserve:

Changes in the estimation of mineral reserves where useful lives of assets are limited to the life of the project, which in turn is limited to the life of the probable and economic feasibility of reserve, could impact the useful lives of the assets for charging depreciation. Bauxite reserves at Mines is estimated by experts in extraction, geology and reserve determination and based on approved mining plan submitted to Indian Bureau of Mines (IBM).

##### 4.2.4 Obligation for post employment benefit Liability

Liability for post employment benefit and long term employee benefit is based on valuation by the actuary which is in turn based on realistic actuarial assumptions.

##### 4.2.5 Provisions & Contingent Liabilities:

The amount recognized as a provision, including tax, legal, restoration and rehabilitation, contractual and other exposures or obligations is the best estimate of the consideration required to settle the related liability, including any interest charges, taking into account the risks and uncertainties surrounding the obligation. The Company assess its liabilities and contingent liabilities based upon the best information available, relevant tax and other laws, contingencies involved and other appropriate requirements.

##### 4.2.6 Fair value measurements and valuation processes:

For financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

#### Note 5. First time adoption- mandatory exceptions, optional exemptions

The Company has adopted all the applicable accounting standards (Ind AS) in accordance with Ind AS 101 – First Time Adoption of Indian Accounting Standards. The Company has transitioned from Indian GAAP which is its previous GAAP as defined in Ind AS 101 with necessary disclosures relating to reconciliation of Shareholders' equity and the comprehensive net income as per Previous GAAP to Ind AS.





The financial statements for the year ended 31st March 2017 are the Company's first financial statements prepared in accordance with Ind AS. Prior to adoption of Ind AS, the Company had been preparing its financial statements in accordance with Accounting Standards notified under the Companies (Accounting Standards) Rules, 2006 and other generally accepted accounting principles in India ("together referred to as "Indian GAAP") for all periods up to and including the year ended 31 March 2016.

#### **5.1 Overall principle**

The Company has prepared the opening balance sheet as per Ind AS as on 1 April, 2015 (the transition date) by recognizing all assets and liabilities whose recognition is required by Ind AS, not recognizing items of assets and liabilities which are not permitted by Ind AS, by reclassifying items from previous GAAP to Ind AS as required under Ind AS, and applying Ind AS in measurement of recognized assets and liabilities. However, this principle is subject to certain exception and certain optional exemptions availed by the Company as detailed below:

##### **5.1.1 Derecognition of financial assets and financial liabilities**

The Company has applied the derecognition requirements of financial assets and financial liabilities prospectively for transactions occurring on or after 1 April, 2015 (the transition date).

##### **5.1.2 Classification of debt instruments**

The Company has determined the classification of its debt instruments in terms of whether they meet the amortised cost criteria or the fair value through other comprehensive income (FVTOCI) criteria based on the facts and circumstances that existed as of the transition date.

##### **5.1.3 Impairment of financial assets**

The Company has applied the impairment requirements of Ind AS 109 retrospectively; however, as permitted by Ind AS 101, it has used reasonable and supportable information that is available without undue cost or effort to determine the credit risk at the date that financial instruments were initially recognized in order to compare it with the credit risk at the transition date. Further, the Company has not undertaken an exhaustive search for information when determining, at the date of transition to Ind ASs, whether there have been significant increases in credit risk since initial recognition, as permitted by Ind AS 101.

##### **5.1.4 Assessment of embedded derivatives**

The Company has assessed whether an embedded derivative is required to be separated from the host contract and accounted for as a derivative on the basis of the conditions that existed at the later of the date it first became a party to the contract and the date when there has been a change in the terms of the contract that significantly modifies the cash flows that otherwise would be required under the contract.

##### **5.1.5 Past Business combinations**

The Company has elected not to apply Ind AS 103 *Business Combinations* retrospectively to past business combinations that occurred before the transition date of 1 April, 2015. Consequently,

- The Company has kept the same classification for the past business combinations as in its previous GAAP financial statements;
- The Company has not recognized assets and liabilities that were not recognized in accordance with previous GAAP in the balance sheet of the acquirer and would also not qualify for recognition in accordance with Ind AS in the separate balance sheet of the acquiree;
- The Company has excluded from its opening balance sheet those items recognized in accordance with previous GAAP that do not qualify for recognition as an asset or liability under Ind AS;

The above exemption in respect of business combinations has also been applied to past acquisitions of investments in associates and interest in joint ventures, as defined in Ind AS 103.

##### **5.1.6 Deemed cost for property, plant and equipment and intangible assets**

The Company has elected to continue with the carrying value of all of its plant and equipment and intangible assets recognized as of 1 April, 2015 (transition date) measured as per the previous GAAP and use that carrying value as its deemed cost as of the transition date.

##### **5.1.7 Deemed cost for investment in subsidiaries, associates and joint ventures**

The Company has elected to continue with the carrying value of all of its investment in associates and joint venture recognized as of 1 April, 2015 (transition date) measured as per the previous GAAP and use that carrying value as its deemed cost as of the transition date.



## Notes to the financial statements

Amount in Rs. Crores

### 6. PROPERTY, PLANT AND EQUIPMENT

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Carrying amount of:</b>			
Freehold land	84.33	71.33	71.33
Buildings	564.63	560.48	554.30
Plant and equipment	6,300.69	5,751.95	5,895.13
Furniture and fixtures	7.65	7.43	6.49
Office equipments	7.32	6.97	7.85
Vehicles	8.93	9.76	12.44
Railway sidings	45.08	49.15	41.11
	<b>7,018.63</b>	<b>6,457.07</b>	<b>6,588.65</b>

	Freehold land	Buildings	Plant and equipment	Furniture and fixtures	Office equipment	Vehicles	Railway sidings	Total
<b>Cost or deemed cost</b>								
Balance as at 01.04.2015	71.33	554.30	5,895.13	6.49	7.85	12.44	41.11	6,588.65
Additions	-	42.94	225.40	2.99	3.60	0.35	12.57	287.85
Disposals	-	-	(6.67)	(0.01)	-	(0.06)	-	(6.74)
Balance as at 31.03.2016	71.33	597.24	6,113.86	9.47	11.45	12.73	53.68	6,869.76
Additions	13.03	41.27	982.44	2.62	4.18	1.81	-	1,045.35
Disposals	(0.03)	-	(17.38)	(0.06)	(0.12)	(0.10)	-	(17.69)
Balance as at 31.03.2017	84.33	638.51	7,078.92	12.03	15.51	14.44	53.68	7,897.42

	Freehold land	Buildings	Plant and equipment	Furniture and fixtures	Office equipment	Vehicles	Railway sidings	Total
<b>Accumulated depreciation and impairment</b>								
Balance as at 01.04.2015	-	-	-	-	-	-	-	-
Depreciation Expense	-	36.76	362.69	2.04	4.48	2.97	4.53	413.47
Disposals	-	-	(0.78)	-	-	-	-	(0.78)
Balance as at 31.03.2016	-	36.76	361.91	2.04	4.48	2.97	4.53	412.69
Depreciation Expense	-	37.12	417.45	2.38	3.79	2.55	4.07	467.36
Disposals	-	-	(1.13)	(0.04)	(0.08)	(0.01)	-	(1.26)
Balance as at 31.03.2017	-	73.88	778.23	4.38	8.19	5.51	8.60	878.79

	Freehold land	Buildings	Plant and equipment	Furniture and fixtures	Office equipment	Vehicles	Railway sidings	Total
<b>Carrying amount</b>								
Balance as at 01.04.2015	71.33	554.30	5,895.13	6.49	7.85	12.44	41.11	6,588.65
Balance as at 31.03.2016	71.33	560.48	5,751.95	7.43	6.97	9.76	49.15	6,457.07
Balance as at 31.03.2017	84.33	564.63	6,300.69	7.65	7.32	8.93	45.08	7,018.63

#### Notes:

- Title deeds have been executed for freehold land acquired through State Government, except for land measuring 66.92 acres. The Company is in the process of conversion of freehold land for Industrial use and has taken-up matter with Revenue Authorities.
- Registration formalities in respect of office space for 6,459 Sq.ft purchased from Kolkata Municipal Development Authority valuing Rs. 5.50 Crores in Kolkata is under progress.
- During the year the Company has changed the estimated useful life of pot relining component of electrolytic pots from 40 years (the life of electrolytic pot) to 7 years (life of the pot relining). Such change in estimation has led to increase in depreciation by Rs. 58.52 crore with corresponding decrease in profit and carrying amount of the assets.



## Notes to the financial statements

Amount in Rs. Crores

## 7. CAPITAL WORK-IN-PROGRESS (CWIP)

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Capital Work-in-progress at cost	473.33	613.54	498.63
Construction materials including in transit (at cost)	42.10	43.55	47.49
	<b>515.43</b>	<b>657.09</b>	<b>546.12</b>
Less: Provision for impairment of capital work in progress	(0.78)	(0.79)	-
<b>Total Capital Work-in-progress</b>	<b>514.65</b>	<b>656.30</b>	<b>546.12</b>

- 7.1. The amount of capital work in progress includes an amount of Rs.41.40 crore ( previous year Rs.39.30 crore) towards infrastructural development expenditure directly attributable to Coal Mines Division.

## 8. INTANGIBLE ASSETS

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Carrying amount of:</b>			
User right (220KV substation)	11.81	13.62	15.43
Computer software	1.68	2.91	2.81
Mining rights [refer note 8.1]	111.83	113.77	107.72
Licenses	0.48	8.31	10.25
	<b>125.80</b>	<b>138.61</b>	<b>136.21</b>

	User right	Computer software	Mining rights	Licenses	Total intangible assets
<b>Cost or deemed cost</b>					
Balance as at 01.04.2015	15.43	2.81	107.72	10.25	136.21
Additions		1.66	13.39		15.05
Disposals					-
Balance as at 31.03.2016	15.43	4.47	121.11	10.25	151.26
Additions		0.19			0.19
Disposals					-
Balance as at 31.03.2017	15.43	4.66	121.11	10.25	151.45

	User right	Computer software	Mining rights	Licenses	Total intangible assets
<b>Accumulated depreciation and impairment</b>					
Balance as at 01.04.2015	-	-	-	-	-
Depreciation Expense	1.81	1.56	7.34	1.94	12.65
Disposals					-
Balance as at 31.03.2016	1.81	1.56	7.34	1.94	12.65
Depreciation Expense	1.81	1.42	1.94	7.83	13.00
Disposals					-
Balance as at 31.03.2017	3.62	2.98	9.28	9.77	25.65

	User right	Computer software	Mining rights	Licenses	Total intangible assets
<b>Carrying amount</b>					
Balance as at 01.04.2015	15.43	2.81	107.72	10.25	136.21
Balance as at 31.03.2016	13.62	2.91	113.77	8.31	138.61
Balance as at 31.03.2017	11.81	1.68	111.83	0.48	125.80

## Notes:

- 8.1 The Company is operating its mining activities at Panchpatmali bauxite mines based on lease granted by Government of Odisha. In connection with lease renewal, the Company has paid NPV and related payments which is capitalized as intangible assets under Mining Rights and amortized on straight line basis as per the Accounting policies of the Company.

## Notes to the financial statements

### 9. INTANGIBLE ASSETS UNDER DEVELOPMENT

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Mining right	26.34	26.34	-
User rights	25.01	5.06	3.18
	<b>51.35</b>	<b>31.40</b>	<b>3.18</b>

**Note:**

- 9.1 Intangible assets under development (mining right) includes an amount of Rs. 26.34 crore towards part payment to Govt. of India against allotment of coal block.
- 9.2 Intangible assets under development (user right) includes an amount of Rs. 25.01 crore (previous year Rs. 5.06 crore) spent on 220 KV transmission line from Refinery plant to 220 KV switching station at Laxmipur, Koraput.

### 10. INVESTMENTS

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
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#### A. Non-current

##### A.1 Investments in equity instruments - (classified as at cost)

##### A.1.1 Investment in associates

Unquoted investments			
NPCIL-NALCO Power Company Limited (26,000 shares of Rs. 10 each fully paid up)	0.02	0.02	0.02
<b>Total investment in associates</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>

##### Details of associates

Details of each of the Company's associates (not material) at the end of the year period are as follows :

Name of the associate	Principal Activity and place of incorporation and principal place of business	Proportion of ownership interest / voting rights held by the Company		
NPCIL-NALCO Power Company Limited	Development of nuclear power, Kakrapura, Gujarat	26%	26%	26%

##### A.1.2 Investment in joint ventures

Unquoted investments			
Angul Aluminium Park Private Limited (As at 31.03.2017: 9,80,000 shares of Rs. 10 each fully paid up, as at 31.03.2016: 9,90,000 shares of Rs. 10 each fully paid up and as at 01.04.2015: 9,90,000 shares of Rs. 10 each fully paid up)	0.98	0.99	0.99
Share application money for 1,37,20,000 shares of Rs.10 each fully paid, shares yet to be allotted	13.72	-	-
<b>Total</b>	<b>14.70</b>	<b>0.99</b>	<b>0.99</b>

As approved by the Board of Directors of Angul Aluminium Park Private Limited in the Board meeting held on 21.03.2017 the equity share holding of NALCO has decreased from 49.5% to 49% and the share holding of OIIC has increased from 50.5% to 51%

The Board has also decided to issue 2,80,00,000 equity shares of Rs. 10/- each. The company (NALCO) has paid Rs. 13.71 crore (49% of equity) as on 31.03.2017. The shares are yet to be allotted.

GACL-NALCO Alkalies & Chemicals Private Limited (As at 31.03.2017:20,00,000 shares of Rs. 10 each fully paid up, as at 31.03.2016: 40,000 shares of Rs. 10 each fully paid up and as at 01.04.2015: Nil)	2.00	0.04	
Share application money for 2,28,00,000 shares of Rs.10 each fully paid, shares yet to be allotted	22.80		
<b>Total</b>	<b>24.80</b>	<b>0.04</b>	<b>-</b>

During the year GACL-NALCO Alkalies & Chemicals Private Limited has issued 19,60,000 no of fully paid equity shares of Rs. 10/- each to NALCO.

The company has also paid an amount of Rs. 22.80 crore during the year towards share application money for 2,28,00,000 no. of equity share of Rs. 10/- each (fully paid) for which shares are yet to be allotted.

<b>Total investment in joint ventures</b>	<b>39.50</b>	<b>1.03</b>	<b>0.99</b>
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## Notes to the financial statements

## 10. INVESTMENTS

## Details of joint ventures

Details of each of the Company's joint ventures (not material) at the end of the reporting period are as follows :

Name of the joint venture	Principal Activity and place of incorporation and principal place of business	Proportion of ownership interest / voting rights held by the Company		
(a) Angul Aluminium Park Private Limited	Promoting aluminium specific downstream in Odisha, Bhubaneswar, Odisha, India	49.00%	49.50%	49.50%
(b) GACL-NALCO Alkalies & Chemicals Private Limited		40.00%	40.00%	0.00%

## A.1.3 Investment in other entities

Unquoted investments				
Odisha Capital Market & Enterprises Limited. (2,89,000 shares of Rs. 1 each fully paid up)		0.03	0.03	0.03
<b>Total - Investments in other entities</b>		<b>0.03</b>	<b>0.03</b>	<b>0.03</b>
<b>Total - investments in equity instruments</b>		<b>39.55</b>	<b>1.08</b>	<b>1.04</b>

## A.2

Investments in Mutual Funds	As at 31.03.2017		As at 31.03.2016		As at 01.04.2015	
	No. of Units	Amount in Rs. Crore	No. of Units	Amount in Rs. Crore	No. of Units	Amount in Rs. Crore
<b>Quoted investments</b>						
UTI FTIF SERIES XVIII – X		-	20,000	23.51		-
UTI FTIF SERIES XVIII- XII		-	40,000	46.89		-
UTI FTIF SERIES XVIII- XIII		-	40,000	46.77		-
UTI FTIF SERIES XIX- I		-	25,000	29.14		-
UTI FTIF SERIES XIX-III		-	75,000	87.36		-
UTI FTIF SERIES XIX – IV		-	25,000	29.10		-
UTI FTIF SERIES XIX- VI		-	50,000	58.13		-
UTI FTIF SERIES XIX- VIII		-	35,000	40.68		-
UTI FTIF SERIES XIX-IX		-	100,000	115.96		-
UTI FTIF SERIES XIX – X		-	10,000	11.59		-
UTI FTIF SERIES XIX-XI		-	60,000	69.47		-
SBI SDFS-366 Days-Series-A-20		-	50,000	58.79		-
SBI SDFS-366 Days-Series-A-22		-	50,000	58.78		-
SBI SDFS-366 Days-Series-A-24		-	50,000	35.01		-
SBI SDFS-366 Days-Series-A-27		-	30,000	58.27		-
SBI SDFS-366 Days-Series-A-28		-	50,000	46.48		-
SBI SDFS-366 Days-Series-A-31		-	40,000	40.57		-
SBI SDFS-366 Days-Series-A-32		-	35,000	28.97		-
SBI SDFS-366 Days-Series-A-34		-	25,000	57.81		-
<b>Total - investments in mutual funds</b>		-		<b>943.28</b>		-
<b>Total non-current investments</b>		<b>39.55</b>		<b>944.36</b>		<b>1.04</b>
<b>Additional information</b>						
Aggregate book value of quoted investments and market value thereof		-		943.28		-
Aggregate carrying amount of unquoted investments		39.55		1.08		1.04
Aggregate amount of impairment in value of investments		-		-		-



## Notes to the financial statements

Amount in Rs. Crores

10 INVESTMENTS	As at 31.03.2017		As at 31.03.2016		As at 01.04.2015	
<b>B. Current</b>						
<b>Investments in Mutual Funds</b>	Units in '000	Amount in Rs. Crore	Units in '000	Amount in Rs. Crore	Units in '000	Amount in Rs. Crore
<b>Quoted Investments</b>						
UTI FTIF SERIES XVIII – V	-	-	-	-	45,000	49.06
UTI FTIF SERIES XVIII – VIII	-	-	-	-	40,000	43.46
UTI FTIF SERIES XVIII – X	20,000	25.44	-	-	20,000	21.68
UTI FTIF SERIES XVIII – XII	40,000	50.81	-	-	40,000	43.17
UTI FTIF SERIES XVIII – XIII	40,000	50.74	-	-	40,000	43.05
UTI FTIF SERIES XIX – I	25,000	31.64	-	-	25,000	26.87
UTI FTIF SERIES XIX – III	75,000	94.65	-	-	75,000	80.47
UTI FTIF SERIES XIX – IV	25,000	31.53	-	-	25,000	26.79
UTI FTIF SERIES XIX – VI	50,000	62.87	-	-	50,000	53.50
UTI FTIF SERIES XIX – VIII	35,000	43.96	-	-	35,000	37.43
UTI FTIF SERIES XIX – IX	100,000	125.58	-	-	100,000	106.73
UTI FTIF SERIES XIX – X	10,000	12.54	-	-	10,000	10.66
UTI FTIF SERIES XIX – XI	60,000	75.18	-	-	60,000	63.93
BOI AXA FMP Series 14	-	-	-	-	5,000	5.43
SBI SDFS-366 Days-Series-A-20	-	-	-	-	50,000	54.31
SBI SDFS-366 Days-Series-A-22	50,000	63.58	-	-	50,000	54.14
SBI SDFS-366 Days-Series-A-24	50,000	63.56	-	-	50,000	54.07
SBI SDFS-366 Days-Series-A-27	30,000	37.87	-	-	30,000	32.27
SBI SDFS-366 Days-Series-A-28	50,000	63.04	-	-	50,000	53.73
SBI SDFS-366 Days-Series-A-31	40,000	50.22	-	-	40,000	42.86
SBI SDFS-366 Days-Series-A-32	35,000	43.88	-	-	35,000	37.43
SBI SDFS-366 Days-Series-A-34	25,000	31.31	-	-	25,000	26.73
SBI SDFS-366 Days-Series-A-35	50,000	62.69	-	-	50,000	53.29
BOI AXA Liquid Fund	499	50.01	110	11.00	-	-
Canara Robeco Liquid	298	30.00	109	11.00	-	-
IDBI Liquid Fund	299	30.01	110	11.00	-	-
SBI Premier Liquid Fund	299	30.01	110	11.00	-	-
Union KBC Liquid	300	30.00	110	11.00	-	-
UTI Money Market Fund	299	30.01	110	11.00	-	-
<b>Total - Other current Investments</b>		<b>1,221.13</b>		<b>66.00</b>		<b>1,021.06</b>
<b>Additional Information</b>						
Aggregate book value of quoted investments and market value thereof		1,221.13		66.00		1,021.06
Aggregate carrying amount of unquoted investments		-		-		-
Aggregate amount of impairment in value of investments		-		-		-
<b>Category-wise other investments - as per Ind AS 109 classification</b>						
		As at 31.03.2017		As at 31.03.2016		As at 01.04.2015
	Financial assets (quoted investments) mandatorily measured at fair value through profit or loss (FVTPL)	1,221.13		1,009.28		1,021.06
		1,221.13		1,009.28		1,021.06

## Notes to the financial statements

Amount in Rs. Crores

## 11 TRADE RECEIVABLES

A. Non-current		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Unsecured, considered good	-	-	-
(b)	Unsecured, considered doubtful	37.11	37.11	37.11
	Less: Allowance for doubtful debts ( expected credit loss allowance)	37.11	37.11	37.11
<b>Net non-current trade receivables</b>		-	-	-
B. Current		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Unsecured, considered good	184.25	235.21	120.82
(b)	Unsecured, considered doubtful	-	-	-
	Less: Allowance for doubtful trade receivables	-	-	-
<b>Net current trade receivables</b>		<b>184.25</b>	<b>235.21</b>	<b>120.82</b>

## Notes:

- 11.1 The sale of goods (Alumina and Aluminium) is made against either advances received from customer or letter of credit. The advance received from customer is adjusted on supply of material. There is no credit period allowed for such sales and accordingly no interest is charged. The average credit period for sale of wind power is 30 days from the date of metering which is considered as collection period. There is no commercial arrangement for sale of inadvertent thermal power generated at captive power plant. It is linked to the wheeling arrangement in view of the plant requirement. The amount of receivable on account of such inadvertent power sale (net of payable for power purchase) takes a longer period for collection. There is no net receivable for such sale as the purchases are at substantially higher rate compared to sale. Since there is no commercial arrangement for sale of wind and thermal power, no interest is recognised.
- 11.2 Out of the trade receivable as at March 31, 2017, Rs.23.21 crores is due from Jodhpur DISCOM for sale of wind power and Rs. 82.17 crore is outstanding from M/s Glencore International on account of export of metal. There is no other customers who represent more than 5% of the total balance of trade receivables.
- 11.3 The company has used a practical approach by computing the expected credit loss allowance for trade receivable based on a case to case basis. Since there is no credit period for sale of alumina and aluminum and the sale is either made against an advance or secured backed by letter of credit (LC) given by the customer, no provision is made against such receivables. For sale of wind power, although there is no credit arrangement, the Company makes provision for allowances based on the industrial credit loss experience and adjusted for forward looking information.

11.4 Age of receivables (at gross)	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Alumina and Aluminium</b>			
0-30 days (LC/ Bills discounting)	144.13	198.35	96.99
More than 30 days (provided for)	37.11	37.11	37.11
	<b>181.24</b>	<b>235.46</b>	<b>134.10</b>
<b>Wind Power</b>			
Within the credit period	6.79	3.75	7.96
1-30 days past due	4.84	2.75	0.00
More than 30 days past due	28.49	30.36	15.87
	<b>40.12</b>	<b>36.86</b>	<b>23.83</b>



## Notes to the financial statements

Amount in Rs. Crores

### 12. LOANS

A. Non-current		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Loans to employees			
	Secured, considered good	68.62	75.38	75.38
	Unsecured, considered good	11.69	31.61	31.61
(b)	Loans to others			
	Secured, considered good	0.29	0.34	0.36
<b>Total non-current loans</b>		<b>80.60</b>	<b>107.33</b>	<b>107.35</b>
B. Current		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Loans to employees			
	Secured, considered good	20.57	11.03	19.63
	Unsecured, considered good	15.58	18.36	18.36
(b)	Loans to related parties			
	Secured, considered good [refer note 12.2]	0.04	0.06	0.10
(c)	Loans to others			
	Secured, considered good	0.51	0.75	0.52
<b>Total current loans</b>		<b>36.70</b>	<b>30.20</b>	<b>38.61</b>

**Note:**

- 12.1 The above loans are carried at amortised cost.  
 12.2 The amount of loan outstanding from the related parties is the amount of house building loan taken by the directors of the Company in the capacity of employee prior to their directorship. Further information on these loans is set out in note 43-Related party disclosure.

### 13. OTHER FINANCIAL ASSETS

A. Non current		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
	Security deposits	10.77	8.04	5.99
<b>Total other non-current financial assets</b>		<b>10.77</b>	<b>8.04</b>	<b>5.99</b>
<b>Classification of other financial assets:</b>				
	Unsecured, considered good	10.77	8.04	5.99
<b>Total other non-current financial assets</b>		<b>10.77</b>	<b>8.04</b>	<b>5.99</b>
B. Current		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Security deposits [refer note 13.2]	151.00	151.00	151.00
(b)	Advances to employees	44.35	38.84	31.20
(c)	Insurance claims receivables	12.66	11.22	11.96
(d)	Derivative assets - forward contract	-	0.92	-
<b>Gross other current financial assets</b>		<b>208.01</b>	<b>201.98</b>	<b>194.16</b>
<b>Less: Allowance for bad and doubtful other current financial assets</b>				
(a)	Advances to employees	44.35	38.84	31.2
(b)	Insurance claims	7.17	6.4	6.45
<b>Total allowance for bad and doubtful other current assets</b>		<b>51.52</b>	<b>45.24</b>	<b>37.65</b>
<b>Total other current financial assets</b>		<b>156.49</b>	<b>156.74</b>	<b>156.51</b>
<b>Classification of other current financial assets:</b>				
	Unsecured, considered good	156.49	156.74	156.51
	Doubtful	51.52	45.24	37.65
<b>Gross other current financial assets</b>		<b>208.01</b>	<b>201.98</b>	<b>194.16</b>

**Note:**

- 13.1 The above assets are carried at amortised cost.  
 13.2 An amount of Rs. 151 crore deposited towards security deposit with Gujarat Mineral Development Corporation (GMDC) is due for refund as the Company has cancelled the plan to set up Alumina refinery at Gujrat. The refund process is under active consideration by M/s. GMDC. The Board of Directors of M/s. GMDC has already cleared the proposal which is awaiting approval from the Govt. of Gujrat. Hence, no provision is considered necessary for this deposit.





## Notes to the financial statements

Amount in Rs. Crores

## 14. CURRENT TAX ASSETS

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Income tax	34.12	102.92	127.77
<b>Total current tax assets</b>	<b>34.12</b>	<b>102.92</b>	<b>127.77</b>

## 15. OTHER ASSETS

A. Non-current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a) Capital advances	114.88	210.03	104.78
(b) Advances other than capital advance:			
Advance with public bodies			
(1) Customs, excise, sales tax, port trusts etc.	250.27	235.44	219.14
(2) Deposits with Income Tax Authority	603.50	535.79	518.09
(3) Other Government authorities	4.01	1.32	1.44
(c) Others			
Prepaid expenses			
(1) Prepaid lease payments for leased lands	5.26	13.74	9.93
(2) Prepaid expenses on employee loans	26.86	27.61	32.61
<b>Gross other non-current assets</b>	<b>1,004.78</b>	<b>1,023.93</b>	<b>885.99</b>
<b>Less: Allowance for bad and doubtful other non-current assets</b>			
(a) Capital advances	0.27	0.50	0.50
<b>Total allowance for bad and doubtful other non-current assets</b>	<b>0.27</b>	<b>0.50</b>	<b>0.50</b>
<b>Total other non-current assets</b>	<b>1,004.51</b>	<b>1,023.43</b>	<b>885.49</b>

**Classification of other non-current assets:**

Secured, considered good			
Unsecured, considered good	1,004.51	1,023.43	885.49
Doubtful	0.27	0.50	0.50
<b>Gross other non-current assets</b>	<b>1,004.78</b>	<b>1,023.93</b>	<b>885.99</b>

B. Current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Advances other than capital advances			
(a) Claims with statutory authorities			
(1) Export Incentive Claims	27.16	27.44	23.82
(2) Generation Based Incentive on power generated from renewable source and Renewable energy certificates	4.09	5.67	4.82
(3) VAT and CENVAT Credit Recoverable	266.81	323.43	304.37
(4) Claims receivable from customs, excise and railway authorities	10.29	10.29	7.62
(b) Prepaid expenses			
(1) Prepaid lease payments for leased lands	17.39	2.06	-
(2) Prepaid expenses on employee loans	5.37	5.00	6.56
(3) Other prepaid expenses	4.43	4.17	3.89
(c) Gold medallion and stamp in hand	0.08	0.19	0.20
(d) Other receivables	1.70	1.66	2.47
(e) Other advances			
(i) Advances to employees	23.06	23.88	23.13
(ii) Advances to suppliers and service providers	391.49	321.84	288.87
(iii) Others	30.13	19.05	39.38
<b>Gross other current assets</b>	<b>782.00</b>	<b>744.68</b>	<b>705.13</b>

## Notes to the financial statements

### 15. OTHER ASSETS

B.	Current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Less: Allowance for bad and doubtful other current assets</b>				
(a)	VAT and CENVAT Credit Recoverable	188.83	137.04	87.69
(b)	Claims receivable from customs, excise and railway authorities	7.74	7.74	3.48
(c)	Other receivables	0.38	0.32	0.43
(d)	Advances to suppliers and service providers	2.45	2.44	2.39
(e)	Others	2.66	2.72	2.68
<b>Total allowance for bad and doubtful other current assets</b>		<b>202.06</b>	<b>150.26</b>	<b>96.67</b>
<b>Total other current assets</b>		<b>579.94</b>	<b>594.42</b>	<b>608.46</b>
<b>Classification of other current assets:</b>				
Unsecured, considered good		579.94	594.42	608.46
Doubtful		202.06	150.26	96.67
<b>Gross other current assets</b>		<b>782.00</b>	<b>744.68</b>	<b>705.13</b>

### 16. INVENTORIES

		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Raw materials	75.69	112.21	118.05
(b)	Work-in-progress	236.37	216.50	202.22
(c)	Intermediaries	93.62	103.24	108.01
(d)	Finished goods	222.72	136.37	136.90
(e)	Coal and fuel oil	186.71	156.97	130.43
(f)	Stores and spares	328.60	314.71	382.56
(g)	Scrap and disposables	12.22	15.01	25.19
<b>Total inventories</b>		<b>1,155.93</b>	<b>1,055.01</b>	<b>1,103.36</b>
<b>Included above, goods-in-transit:</b>				
(i)	Raw materials	9.80	30.18	11.22
(ii)	Coal and fuel oil	32.44	23.17	1.96
(iii)	Stores and spares	15.81	12.28	21.19
<b>Total goods-in-transit</b>		<b>58.05</b>	<b>65.63</b>	<b>34.37</b>

#### Note:

- 16.1 The cost of inventories recognised as an expense during the year is Rs. 3487.46 crore ( during 2015-16 : Rs. 3123.34 crore)
- 16.2 The cost of inventories recognised as an expense includes Rs. 13.02 crore ( during 2015-16 Rs. 10.84 crore) in respect of write-downs of inventory for non moving items.
- 16.3 The inventories are hypothecated/pledged against cash credit facility.
- 16.4 The method of valuation of inventories has been stated in note 3.16 - Significant accounting policy.

## Notes to the financial statements

## 17. A-CASH AND CASH EQUIVALENTS

		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Balances with banks			
(1)	Balance with scheduled banks			
	(i) In current account	24.83	28.30	3.68
	(ii) In deposit account (having original maturity less than three months)	-	626.12	-
	<b>Total cash and cash equivalents</b>	<b>24.83</b>	<b>654.42</b>	<b>3.68</b>
	The above balances are also considered as cash and cash equivalents for drawing of cash flow statement.			

## 17.B Bank balances (other than Cash and cash equivalents)

		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	In deposit account (having original maturity between 3-12 months)	2,260.61	4,443.63	4,792.30
(b)	Earmarked balance with scheduled banks	1.79	5.10	5.00
	<b>Total other bank balances</b>	<b>2,262.40</b>	<b>4,448.73</b>	<b>4,797.30</b>

**Note:**

17.B.1 Earmarked balance with scheduled banks represents amount deposited in scheduled banks towards unclaimed dividends.

17.B.2 Amount due for credit to Investor's Education and Protection Fund at the end of the current year Rs. Nil. (previous year Rs. Nil)

## 18. SHARE CAPITAL

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Authorised share capital:</b>			
6,00,00,00,000 fully paid-up equity shares of Rs. 5 each	3,000.00	3,000.00	3,000.00
	<b>3,000.00</b>	<b>3,000.00</b>	<b>3,000.00</b>
<b>Issued and subscribed capital comprises:</b>			
1,93,29,28,884 fully paid-up equity shares of Rs. 5 each (As at 31.03.2016 and 01.04.2015: 2,57,72,38,512 fully paid-up equity shares of Rs. 5 each)	966.46	1,288.62	1,288.62
	<b>966.46</b>	<b>1,288.62</b>	<b>1,288.62</b>

## 18.1 Fully Paid Equity Shares

	Number of shares	Amount Rs. in Crore
<b>Balance as at 01.04.2015</b>	<b>2,57,72,38,512</b>	<b>1,288.62</b>
Changes in equity share capital during the period	-	-
<b>Balance as at 31.03.2016</b>	<b>2,57,72,38,512</b>	<b>1,288.62</b>
Changes in equity share capital during the period		
Buy-back of equity shares by the Company	(64,43,09,628)	(322.16)
<b>Balance as at 31.03.2017</b>	<b>1,93,29,28,884</b>	<b>966.46</b>

- (i) Fully paid equity shares, which have a par value of Rs. 5 each, carry one vote per share and carry a right to dividends.
- (ii) The Company has bought back 64,43,09,628 no. of equity shares of Rs. 5 each during the year which has led to decrease in the equity share capital from Rs. 1,288.62 Crores to Rs. 966.46 Crores (from 2,57,72,38,512 no. of equity shares to 1,93,29,28,884 no. of equity shares of Rs. 5 each).
- (iii) The shares bought back during the year were extinguished on September 26, 2016.

## Notes to the financial statements

### 18.2 Details of Shares held by each Shareholder holding more than 5% of Shares

	As at 31.03.2017		As at 31.03.2016		As at 01.04.2015	
	Number of shares held	% of holding of equity shares	Number of shares held	% of holding of equity shares	Number of shares held	% of holding of equity shares
<b>Fully paid equity shares</b>						
Government of India	1,44,14,82,490	74.58%	2,08,57,82,622	80.93%	2,08,57,82,622	80.93%
Life Insurance Corporation of India	20,43,84,512	10.57%	17,73,16,005	6.88%	18,82,51,981	7.30%

Details of shares held by the holding entity (Govt. of India) has been shown in the note 18.2 above

### 19 OTHER EQUITY

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a) Capital redemption reserves	322.16	-	-
(b) General reserve	8,620.41	11,461.10	11,461.10
(c) Retained earnings	296.76	445.03	173.89
<b>Total</b>	<b>9,239.33</b>	<b>11,906.13</b>	<b>11,634.99</b>

### 19.1 MOVEMENT IN OTHER EQUITY

Other equity	Reserves and Surplus			Total
	Capital redemption reserves	General reserve	Retained earnings	
<b>Balance as at 01.04.2015</b>	-	<b>11,461.10</b>	<b>173.89</b>	<b>11,634.99</b>
Change in accounting policy or prior period errors	-	-	-	-
<b>Restated balance as at 01.04.2015</b>	-	<b>11,461.10</b>	<b>173.89</b>	<b>11,634.99</b>
Profit for the year	-	-	787.11	787.11
Other comprehensive income (net of taxes)	-	-	26.85	26.85
<b>Total comprehensive income for the year</b>	-	-	<b>813.96</b>	<b>813.96</b>
Final dividend for previous year	-	-	(128.86)	(128.86)
Tax on final dividend for previous year	-	-	(26.22)	(26.22)
Interim dividend for the year	-	-	(322.16)	(322.16)
Tax on interim dividend for the year	-	-	(65.58)	(65.58)
Transfer of Ind AS transition reserve to profit and loss	-	-	-	-
<b>Balance as at 31.03.2016</b>	-	<b>11,461.10</b>	<b>445.03</b>	<b>11,906.13</b>
Change in accounting policy or prior period errors	-	-	-	-
<b>Restated balance as at 01.04.2016</b>	-	<b>11,461.10</b>	<b>445.03</b>	<b>11,906.13</b>
Profit for the year	-	-	668.53	668.53
Other comprehensive income (net of taxes)	-	-	9.08	9.08
<b>Total comprehensive income for the year</b>	-	-	<b>677.61</b>	<b>677.61</b>
Premium on Buy-back of equity shares	-	(2,512.81)	-	(2,512.81)
Expenses on Buy-back of equity shares	-	(5.72)	-	(5.72)
Transfer of general reserve to Capital redemption reserve	322.16	(322.16)	-	-
Final dividend for previous year	-	-	(144.97)	(144.97)
Tax on final dividend for previous year	-	-	(29.51)	(29.51)
Interim dividend for the year	-	-	(541.22)	(541.22)
Tax on interim dividend for the year	-	-	(110.18)	(110.18)
<b>Balance as at 31.03.2017</b>	<b>322.16</b>	<b>8,620.41</b>	<b>296.76</b>	<b>9,239.33</b>

- 19.2 The Company has bought back its own equity shares on September 26, 2016 out of general reserve amounting to Rs. 2834.97 crore, including premium amount and consequently a sum equal to the nominal value of the shares so bought back amounting to Rs. 322.16 Crores have been transferred to the capital redemption reserve account in terms of section 69 of the Companies Act, 2013.

## Notes to the financial statements

- 19.3 The amount in the general reserve that can be distributed by the Company as dividends to its equity shareholders is determined based upon the Company's financial statements and also considering the requirements of the Companies Act, 2013. Thus, the amount reported above under retained earnings are not distributable in its entirety.
- 19.4 The liability for post retirement medical benefits based on actuarial valuation as on 31.03.2015 under previous GAAP was revised from Rs. 6.82 crore to Rs.72.32 crore due to error of omission. The differential amount was recognised as a change to the retained earning as on the transition date. Accordingly an amount of Rs.42.83 crore and Rs. 22.66 crore has been adjusted with retained earning account and deferred tax liability respectively.
- 19.5 "As per the earlier GAAP, the Company has provided an amount of Rs.193.29 crore as final dividend for financial year 2015-16 and dividend distribution tax of Rs.39.35 crore. After adoption of Ind AS, the said amount has been taken to retained earnings from which an amount of Rs.144.97 crore and Rs.29.51 crore has been released towards final dividend and dividend distribution tax as approved by share holders in 36th AGM held on 30th Sept'2016. Reduction in the amount of final dividend for 2015-16 and dividend distribution tax is due to reduction of share capital on account of buyback of shares of the Company prior to distribution of dividend."
- 19.6 During the year the Company has paid interim dividend of Rs.2.80 per equity share amounting in total Rs. 541.22 crore. For financial year 2015-16, the Company paid interim dividend of Rs. 322.16 crore and final dividend of Rs. 144.97 crore.

### 20 BORROWINGS

Current (secured at amortised cost)	Amount in Rs. Crores		
	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Liabilities towards bills discounted	51.09	-	-
<b>Total other current financial liabilities</b>	<b>51.09</b>	<b>-</b>	<b>-</b>

#### Notes:

Liability towards bills discounted as at March 31, 2017 relates to bills raised on customers which have been discounted with the bank under the cash credit facility of the Company. For the first time the company recognises the liability for bills discounted but not collected by the bank from the customer/ confirmed acceptance by the accepting bank on the reporting date. Source of such information is the negotiating bank and these data are maintained by the bank in the electronic mode which are updated on a realtime basis. These informations are not available with the bank for past periods. Hence, the figures for the corresponding period ended at March 31, 2016 and March 31, 2015 could not be made available. However, the bills discounted as on March 31, 2016 and March 31, 2015 have already been collected by the negotiating bank. As on March 31, 2017 there is no such case pertaining to earlier periods.

### 21 TRADE PAYABLES

A.	Non-current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(1)	Creditors for supplies and services			
	- Dues to micro and small enterprises	-	-	-
	- Others	19.61	16.30	19.82
	<b>Total non-current trade payables</b>	<b>19.61</b>	<b>16.30</b>	<b>19.82</b>
B.	<b>B. Current</b>			
(1)	Creditors for supplies and services			
	- Dues to micro and small enterprises	3.09	1.26	2.85
	- Others	653.80	535.54	433.56
(2)	Accrued wages and salaries	187.57	102.76	130.16
	<b>Total current trade payables</b>	<b>844.46</b>	<b>639.56</b>	<b>566.57</b>

#### Notes:

- 21.1 The credit period on purchases varies from contract to contract based on the terms of payment in each contract. In none of the contract interest is charged. The company has financial risk management policy in place to ensure that all payables are paid as per agreed terms.
- 21.2 Accrued wages and salaries includes liability provisions towards pay revision arrear of the employees for the period January 1, 2017 to March 31, 2017 amounting to Rs. 81.07 crore and diversion of PRMBS allocation to NPS amounting to Rs. 35.79 crore. [refer note 33]
- 21.3 Dues payable to Micro and Small Enterprises as defined in the Micro, Small and Medium Enterprises Development Act, 2006 have been determined to the extent such parties have been identified on the basis of information available with the Company. The disclosure pursuant to said Act is as under.



## Notes to the financial statements

Amount in Rs. Crores

Particulars	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
i) Principal amount due #	4.49	2.12	3.05
ii) Interest on principal amount due	Nil	Nil	Nil
iii) Interest and principal amount paid beyond appointment day	Nil	Nil	Nil
iv) The amount of interest due and for the period of delay in making payment (which have been paid but beyond the appointed day during the year) but without adding the amount of interest specified under MSME Development Act 2006.	Nil	Nil	Nil
v) The amount of interest accrued and remaining unpaid at the end of the year.	Nil	Nil	Nil
vi) The amount of further interest remaining due and payable even in the succeeding years, until such date when the interest due as above are actually paid to the small enterprise, for the purpose of disallowance as a deductible expenditure under section 23 of MSME Development Act 2006.	Nil	Nil	Nil

# The principal amount due mentioned above includes trade payable [refer note 21] and other financial liabilities [refer note 22]

### 22. OTHER FINANCIAL LIABILITIES

A. Non current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Creditors for capital supplies and services			
- Dues to micro and small enterprises	-	-	-
- Others	2.36	1.58	3.07
<b>Total other non-current financial liabilities</b>	<b>2.36</b>	<b>1.58</b>	<b>3.07</b>
B. Current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a) Unpaid dividends	1.79	5.10	5.00
(b) Creditors for other liabilities			
(1) Creditors for capital supplies and services			
- Dues to micro and small enterprises	1.40	0.86	0.20
- Others	359.66	311.39	361.78
(2) Security deposits from customers	1.57	1.85	1.51
(3) Refund due to customers	14.52	2.02	2.02
(4) Liabilities for discount on sales to customers	88.62	79.84	102.78
(5) Employees' recoveries	1.54	1.29	1.98
<b>Total other current financial liabilities</b>	<b>469.10</b>	<b>402.35</b>	<b>475.27</b>

#### Notes:

Dues payable to Micro and Small Enterprises as defined in the Micro, Small and Medium Enterprises Development Act, 2006 have been determined to the extent such parties have been identified on the basis of information available with the Company. The disclosure pursuant to said Act has been made at note 21.3.

## Notes to the financial statements

## 23. PROVISIONS

		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>A. Non-current</b>				
(a)	Provision for employee benefits			
(1)	Retirement benefits obligations			
(i)	Post retirement medical benefits scheme (PRMBS)	57.17	56.21	64.09
(ii)	Settling in benefit on retirement	2.40	2.37	5.39
(iii)	Nalco benevolent fund scheme (NBFS)	2.51	2.56	-
(iv)	Nalco retirement welfare scheme( NRWS)	10.32	9.92	-
(v)	Retirement gift	6.68	6.20	-
(2)	Other long-term employee benefits			
(i)	Compensated absences	210.57	181.62	214.08
(ii)	Long service rewards	8.88	7.67	6.69
(iii)	Nalco employees family financial assistance rehabilitation scheme(NEFFARS)	7.50	7.31	10.02
(b)	Other Provisions			
(1)	Asset restoration obligations/dismantling	21.70	18.37	16.99
(2)	Other legal and constructive obligations	0.38	8.89	8.22
<b>Total non current provisions</b>		<b>328.11</b>	<b>301.12</b>	<b>325.48</b>
<b>B. Current</b>				
		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Provision for employee benefits			
(1)	Retirement benefits obligations			
(i)	Retiring gratuity	12.08	8.60	2.05
(ii)	Post retirement medical benefits scheme (PRMBS)	7.14	5.02	8.32
(iii)	Settling in benefit on retirement	0.01	0.37	0.59
(iv)	Nalco benevolent fund scheme (NBFS)	1.35	1.38	-
(v)	Nalco retirement welfare scheme( NRWS)	3.52	3.21	-
(vi)	Retirement gift	0.67	0.72	-
(2)	Other Long-term employee benefits			
(i)	Compensated absences	20.26	15.73	15.36
(ii)	Long service rewards	0.62	0.63	2.08
(iii)	Nalco employees family financial assistance rehabilitation scheme(NEFFARS)	20.29	13.90	10.20
(b)	Other Provisions			
(1)	towards corporate social responsibility (CSR)	33.36	37.59	48.71
(2)	towards other legal and constructive obligations	17.77	-	-
<b>Total current provisions</b>		<b>117.07</b>	<b>87.15</b>	<b>87.31</b>



Notes to the financial statements

Amount in Rs. Crores

23. PROVISION

C. Movement of provisions			
<b>(1) Movement of retirement benefit obligations [refer note 33]</b>			
<b>(2) Movement of employee benefits</b>			
	Compensated absences	Long service rewards	NEFFARS
<b>Balance at 01.04.2015</b>	229.44	8.77	20.22
Additional provisions recognised	75.76	1.13	12.49
Reductions arising from payments	(124.58)	(1.72)	(11.50)
Change arising from remeasurement	16.73	0.11	-
<b>Balance at 31.03.2016</b>	<b>197.35</b>	<b>8.29</b>	<b>21.21</b>
Additional provisions recognised	70.55	1.13	19.68
Reductions arising from payments	(47.64)	(0.71)	(13.10)
Reductions arising from remeasurement	10.57	0.79	-
<b>Balance at 31.03.2017</b>	<b>230.83</b>	<b>9.50</b>	<b>27.79</b>
<b>(3) Movement of other Provisions</b>			
	Asset restoration obligation	Legal and Constructive Obligation	Corporate social responsibility (CSR)
<b>Balance at 01.04.2015</b>	16.99	8.22	48.71
Additional provisions recognised	-	-	-
Reductions arising from payments	-	-	(11.12)
Unwinding of discount	1.38	0.67	-
<b>Balance at 31.03.2016</b>	<b>18.37</b>	<b>8.89</b>	<b>37.59</b>
Additional provisions recognised	1.66	8.51	-
Reductions arising from payments	-	-	(4.23)
Unwinding of discount	1.67	0.75	-
<b>Balance at 31.03.2017</b>	<b>21.70</b>	<b>18.15</b>	<b>33.36</b>

Note:

- 23.1 Details of provisions related to employee benefit under defined benefit plan has been disclosed at note 33.
- 23.2 Provision related to long term employee benefit i.e compensated absences (accumulated earned Leave, Half pay Leave & Sick Leave), Long service rewards are provided as per the Company's rule and liability for the same is recognised on the basis of actuarial valuation by independent actuary.
- 23.3 Provision for asset restoration obligation and constructive obligation is made based on management estimation in line with Ind AS 16 and Ind AS 37 respectively.
- 23.4 Provision for CSR expenditure is the unspent CSR obligation of the Company prior to introduction of Companies Act 2013.





## Notes to the financial statements

Amount in Rs. Crores

## 24. DEFERRED TAX LIABILITIES

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015	
<b>Deferred tax liabilities</b>	<b>1,492.97</b>	<b>1,400.66</b>	<b>1,300.30</b>	
<b>Deferred tax assets</b>	<b>247.39</b>	<b>236.55</b>	<b>185.01</b>	
	<b>1,245.58</b>	<b>1,164.11</b>	<b>1,115.29</b>	
2015-16	Opening Balance as at 01.04.2015	Recognised in profit or loss	Recognised in other comprehensive income	Closing balance as at 31.03.2016
<b>Deferred tax liabilities relating to:</b>				
Property, plant and equipment	(1,275.71)	(89.79)	-	(1,365.50)
FVTPL financial assets	(24.59)	(10.57)	-	(35.16)
<b>Deferred tax liabilities</b>	<b>(1,300.30)</b>	<b>(100.36)</b>	<b>-</b>	<b>(1,400.66)</b>
<b>Deferred tax assets in relation to:</b>				
Provision for compensated absences and other employee benefits	85.91	(7.40)	-	78.51
Provision for defined benefit obligation	30.65	14.00	(14.21)	30.44
Provision for doubtful debts / advances	18.62	39.20	-	57.82
Others	49.83	19.95	-	69.78
<b>Deferred tax liabilities</b>	<b>185.01</b>	<b>65.75</b>	<b>(14.21)</b>	<b>236.55</b>
<b>Deferred tax (liabilities) / assets (net)</b>	<b>(1,115.29)</b>	<b>(34.61)</b>	<b>(14.21)</b>	<b>(1,164.11)</b>
2016-17	Opening balance as at 01.04.2016	Recognised in profit or loss	Recognised in other comprehensive income	Closing balance as at 31.03.2017
<b>Deferred tax liabilities relating to:</b>				
Property, plant and equipment	(1,365.50)	(98.43)	-	(1,463.93)
FVTPL financial assets	(35.16)	6.12	-	(29.04)
<b>Deferred tax liabilities</b>	<b>(1,400.66)</b>	<b>(92.31)</b>	<b>-</b>	<b>(1,492.97)</b>
<b>Deferred tax assets in relation to:</b>				
Provision for compensated absences and other employee benefits	78.51	14.28	-	92.79
Provision for defined benefit obligation	30.44	12.46	(4.80)	38.10
Provision for doubtful debts / advances	57.82	27.04	-	84.86
MAT credit entitlement		17.46		17.46
Others	69.78	(55.60)	-	14.18
<b>Deferred tax assets</b>	<b>236.55</b>	<b>15.64</b>	<b>(4.80)</b>	<b>247.39</b>
<b>Deferred tax (liabilities) / assets (net)</b>	<b>(1,164.11)</b>	<b>(76.67)</b>	<b>(4.80)</b>	<b>(1,245.58)</b>



## Notes to the financial statements

Amount in Rs. Crores

### 25. OTHER LIABILITIES

A. Non-current		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(i)	Deposits under NEFFARS	48.27	50.38	42.42
<b>Total other non-current liabilities</b>		<b>48.27</b>	<b>50.38</b>	<b>42.42</b>
B. Current				
(i)	Revenue received in advance	73.36	37.90	45.43
(ii)	Statutory and other dues			
(a)	Electricity duty	22.09	20.92	13.43
(b)	Tax deducted and collected at source	15.13	14.89	13.66
(c)	Contribution to NEPF trust and NPS	30.02	23.22	29.93
(d)	Disputed dues towards water charges [refer note 25.2]	839.97	662.21	522.43
(e)	Others (Service tax, excise duty etc)	114.59	63.10	44.61
(iii)	Renewable energy purchase obligation [refer note 25.1]	60.34	25.99	18.43
(iv)	Deposits under NEFFARS	13.25	3.29	3.83
(v)	Grants for property, plant and equipment	0.61	0.58	0.36
(vi)	Other credit balances	0.85	0.79	0.65
<b>Total other current liabilities</b>		<b>1,170.21</b>	<b>852.89</b>	<b>692.76</b>

#### Note:

- 25.1 As per the provisions of Odisha Electricity Regulatory Commission (OERC) notification dated 1st August 2015, Nalco, being an obligated entity has the obligation to generate power equal to 4.5% (Previous year 3%) of its total consumption from renewable sources comprising of 1.50% (Previous Year 0.50%) from Solar renewable source and 3% (previous year 2.5%) from Non solar renewable source.

The company has fulfilled its non solar obligation (through wind power generation) for the current year and part obligation for previous years. Cumulative Non solar obligation as on 31.3.2017 is Rs.3.16 Crore (previous year Rs.2.75 crore) towards 21,066 (previous year 18,297) numbers of Non-solar REC valued @ Rs. 1,500 ( Previous year Rs 1,500) per certificate. It may be mentioned that during the year 1,14,493 Nos of Non solar REC has been self retained by the Company as a compliance to Renewable Purchase Obligation.

Due to non-fulfilment of the obligation to generate required quantum of power from renewable source of Solar energy the company has provided cumulative liability up to 31.3.2017 for Rs.57.18 crore ( previous year Rs.23.24 Crore) towards 1,63,371 ( previous year 66,413) numbers of Solar REC valued @ Rs.3,500 ( previous year Rs.3,500) per certificate.

- 25.2 The Water Resources Department, Govt. of Odisha having territorial jurisdiction over the Government water sources raised the claims on the Company for water charges and interest on unpaid water charges in terms of The Orissa Irrigation Rules, 1961. The water charges have been fully paid although disputed. Interest there on has been provided for on a conservative basis although not admitted by the Company.

## Notes to the financial statements

## 26. CONTINGENT LIABILITIES (to the extent not provided for)

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Claims against the Company not acknowledged as debts</b>			
<b>a. Demand from statutory authority</b>			
1. Sales Tax	427.84	411.52	445.60
2. Excise duty	165.46	102.05	83.35
3. Custom duty	52.00	5.77	5.77
4. Service tax	2.31	2.35	2.26
5. Income tax	797.94	688.36	1079.37
6. Entry tax and road tax	253.19	288.67	214.46
7. Land acquisition and interest there on	44.21	43.49	43.83
8. Stamp duty	204.53	205.97	211.64
9. Demand from Dept. of mines Govt. of Odisha	136.32	136.30	90.05
10. NPV related demand under Mining lease	93.10	93.10	106.04
11. Employee state insurance		0.32	0.32
12. Provident fund commissioner		-	0.05
<b>b. Claim by contractors/suppliers and others</b>			
i. Claims of Contractor's suppliers and others	270.96	159.41	163.27
<b>Total</b>	<b>2,447.86</b>	<b>2,137.31</b>	<b>2,446.01</b>

Claims against the Company not acknowledged as debt includes:

- Demand from various statutory authorities towards income tax, sales tax, excise duty, custom duty, service tax, entry tax and other government levies. The Company is contesting the demand at appellate authorities. It is expected that the ultimate outcome of these proceedings will be in favour of the Company and will not have any material adverse effect on the Company's financial position and results of operation.
- Claims of contractors for supply of materials/services pending with arbitration/courts those have arisen in the ordinary course of business. The Company reasonably expect that these legal actions when ultimately concluded and determined will be in favour of the Company and will not have material adverse effect on the Company's results of operation or financial position.

## 26.1 Movement of Contingent Liabilities

	As at 31.03.2016	Settled during the year	Addition during the year	As at 31.03.2017
<b>a. Demand by statutory authority</b>				
1. Sales Tax	411.52	(1.04)	17.36	427.84
2. Excise duty	102.05	(74.17)	137.58	165.46
3. Custom duty	5.77	(0.83)	47.06	52.00
4. Service tax	2.35	(0.06)	0.02	2.31
5. Income tax	688.36	-	109.58	797.94
6. Entry tax and road tax	288.67	(40.31)	4.83	253.19
7. Land acquisition and interest there on	43.49	(0.17)	0.89	44.21
8. Stamp duty	205.97	(1.44)	-	204.53
9. Demand from Dept. of mines Govt. of Odisha	136.30	-	0.02	136.32
10. NPV related demand under Mining lease	93.10	-	-	93.10
11. Employee state insurance	-	-	-	-
12. Provident fund commissioner	0.32	(0.32)	-	-
<b>b. Claim by contractors/suppliers and others</b>				
i. Claims of Contractor's suppliers and others	159.41	(44.96)	156.51	270.96
<b>Total</b>	<b>2,137.31</b>	<b>(163.30)</b>	<b>473.85</b>	<b>2,447.86</b>

Notes to the financial statements

Amount in Rs. Crores

27. CAPITAL COMMITMENTS

		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
a)	Estimated amount of Contracts remaining to be executed on capital account and not provided for	201.84	667.60	207.54
b)	Other Commitments			
(1)	The company has been allotted Utkal D and E coal block by Govt. of India. As per the terms of allotment, the Company has paid an amount of Rs. 26.34 crore and the balance instalments not yet due.	18.11	18.11	Nil
(2)	The company has been allotted Utkal D by Govt. of India which was earlier allotted to the project proponents. As per the terms of allotment, the Company has to pay Rs. 108.36 crore to the project proponent of which Rs. 13.15 crore has been paid. Balance amount to be paid after transfer of title deed of land.	95.18	Nil	Nil
(3)	The Company has imported capital goods under Export Promotion Capital Goods Scheme (EPCG) of the Government of India at concessional rates of duty under the scheme to fulfill quantified export for duty saved Rs.19.62 crores as at March 31,2017, Rs. 6.95 crores March 31, 2016 and Rs. 8.90 crores as at March 31, 2015.	117.69	41.68	53.41
	<b>Total</b>	<b>432.82</b>	<b>727.39</b>	<b>260.95</b>

28. DETAILS OF SPECIFIED BANK NOTES (SBN) HELD AND TRANSACTED DURING THE PERIOD 08.11.2016 TO 30.12.2016 (PURSUANT TO MCA NOTIFICATION NUMBER G.S.R. 308 (E) DATED 30.03.2017)

Particulars	Specified Bank Notes (SBNs)	Other denomination notes	Total
	Amount (Rs)	Amount (Rs)	Amount (Rs)
Closing Cash in hand as on 08.11.2016	18,11,500	1,30,323	19,41,823
(+) Permitted Receipts	-	71,75,887	71,75,887
(-) Non-Permitted Receipts	81,000	-	81,000
(-) Permitted payments /use	-	24,64,416	24,64,416
(-) Non-Permitted payments /use	9,000	-	9,000
(-) Amount deposited in Banks	18,83,500	42,35,148	61,18,648
Closing cash in hand as on 30.12.2016	-	6,06,646	6,06,646

**Note:**

- 28.1 The non-permitted receipts relates to the amount collected at the Company owned hospitals situated at different plant sites. The company extends it's medical services to the non-entitled category on chargeable basis. The local residents, mostly villagers, vendors and associates avail healthcare facilities by paying nominal charges.
- 28.2 The non-permitted payments relates to the payments made by the employees for emergency official expenses immediately after demonitisation. The above items are considered to arrive at the closing cash in hand as on 30.12.2016

## Notes to the financial statements

## 29. REVENUE FROM OPERATIONS

		Year ended 31.03.2017	Year ended 31.03.2016
(a)	Sale of products (including excise duty)		
	1) Export:		
	i) Alumina	2,443.04	2,198.27
	ii) Aluminium	1,181.95	1,048.60
	2) Domestic:		
	i) Alumina	141.21	119.92
	ii) Aluminium	4,090.24	3,734.24
(b)	Sale of power		
	i) Thermal power	4.75	5.26
	ii) Wind Power	71.80	50.26
(c)	Other operating income		
	1) Export Incentives		
	i) Alumina	30.25	43.78
	ii) Aluminium	38.98	38.52
	2) Incentives on Renewable Energy		
	i) Renewable Energy certificates	28.67	22.80
	ii) Generation based incentives	8.18	7.58
	3) Own manufactured goods internally used /capitalised	10.95	-
	<b>Revenue from operations</b>	<b>8050.02</b>	<b>7269.23</b>

**Note:**

- 29.1 Domestic sale of Alumina and Aluminium includes excise duty amounting to Rs. 15.88 crore (previous year Rs. 13.52 crore) and Rs. 478.63 crore (previous year Rs. 439.69 crore) respectively.
- 29.2 Income from own manufactured goods relates to the finished goods (anode stem and rolled sheets) produced for internal consumption.

## 30. OTHER INCOME

		Year ended 31.03.2017	Year ended 31.03.2016
(a)	Interest income		
	(i) Interest income earned from financial assets that are not designated as at fair value through profit or loss:		
	– Bank deposits	265.65	435.73
	– Loans to employees	14.23	16.53
	– Other financial assets carried at amortised cost	0.70	0.77
	(ii) Interest income earned towards Income tax refund	12.06	13.86
(b)	Dividend income		
	– Dividends from current investments	8.78	5.19
(c)	Net foreign exchange gain/(loss)	(7.90)	5.98
(d)	Net gain/(loss) on financial assets designated as at FVTPL	77.81	74.49
(e)	Net gain/(loss) on sale of other non-current investments	-	0.70
(f)	Write back of liabilities no longer required	14.29	33.57
(g)	Income from internally generated scrap	9.04	6.52
(h)	Others	13.61	11.79
	<b>Total other income</b>	<b>408.27</b>	<b>605.13</b>



## Notes to the financial statements

Amount in Rs. Crores

### 31. COST OF MATERIALS CONSUMED

		Year ended 31.03.2017	Year ended 31.03.2016
<b>A.</b>	<b>Raw material</b>		
(1)	Caustic soda	677.30	585.26
(2)	C.P. coke	269.47	302.64
(3)	C.T. pitch	101.13	94.98
(4)	Aluminium flouride	60.05	50.69
(5)	Lime	44.45	41.03
(6)	Others	29.39	29.81
	<b>Total raw materials consumed</b>	<b>1,181.79</b>	<b>1,104.41</b>
<b>B.</b>	<b>Power and Fuel</b>		
(1)	Coal	1,531.39	1,285.27
(2)	Fuel oil	455.71	398.22
(3)	Duty on own generation	214.06	172.68
(4)	Purchased power	3.99	1.89
(5)	Power transmission charges	7.38	6.55
	<b>Total Power and Fuel consumed</b>	<b>2,212.53</b>	<b>1,864.61</b>

### 32. CHANGES IN INVENTORIES OF FINISHED GOODS, INTERMEDIARIES AND WORK-IN-PROCESS

		Year ended 31.03.2017	Year ended 31.03.2016
<b>Finished goods</b>			
	Opening stock		
(1)	Bauxite	7.73	4.83
(2)	Chemical	93.81	94.32
(3)	Aluminium	25.98	28.53
	<b>Opening stock</b>	<b>127.52</b>	<b>127.68</b>
	Add: Excise duty		
(1)	Bauxite	-	-
(2)	Chemical	6.06	4.87
(3)	Aluminium	2.79	4.35
	<b>Excise duty on opening stock</b>	<b>8.85</b>	<b>9.22</b>
	<b>Total opening stock of finished goods</b>	<b>136.37</b>	<b>136.90</b>
<b>Less:</b>			
	Closing stock		
(1)	Bauxite	3.07	7.73
(2)	Chemical	154.15	93.81
(3)	Aluminium	41.52	25.98
	<b>Closing stock</b>	<b>198.74</b>	<b>127.52</b>
	Add: Excise duty		
(1)	Bauxite	-	-
(2)	Chemical	18.22	6.06
(3)	Aluminium	5.76	2.79
	<b>Excise duty on closing stock</b>	<b>23.98</b>	<b>8.85</b>
	<b>Total Closing stock of finished goods</b>	<b>222.72</b>	<b>136.37</b>
	<b>(Accretion)/Depletion in finished goods</b>	<b>(86.35)</b>	<b>0.53</b>

## Notes to the financial statements

## 32. CHANGES IN INVENTORIES OF FINISHED GOODS, INTERMEDIARIES AND WORK-IN-PROCESS

Intermediaries		Year ended 31.03.2017	Year ended 31.03.2016
	Opening stock		
	Anodes	96.08	103.49
	Others	7.17	4.52
	<b>Total opening stock of intermediaries</b>	<b>103.25</b>	<b>108.01</b>
	Less:Closing stock		
	Anodes	82.97	96.08
	Others	10.65	7.17
	<b>Total closing stock of intermediaries</b>	<b>93.62</b>	<b>103.25</b>
	<b>(Accretion)/depletion in intermediaries</b>	<b>9.63</b>	<b>4.76</b>
	<b>Work in process</b>		
	Opening stock	216.50	202.22
	Less:Closing stock	236.37	216.50
	<b>(Accretion)/depletion in work in process</b>	<b>(19.87)</b>	<b>(14.28)</b>
	<b>Total (Accretion)/Depletion in inventory</b>	<b>(96.59)</b>	<b>(8.99)</b>

## 33. EMPLOYEE BENEFIT EXPENSE

		Year ended 31.03.2017	Year ended 31.03.2016
(a)	Salaries and wages, including bonus	1,240.25	1,122.40
(b)	Contribution to provident and other funds		
	1) Provident fund	96.00	92.12
	2) Gratuity	29.38	27.69
	3) Post employment pension scheme	88.54	88.42
(c)	Staff welfare expenses	83.27	67.70
	<b>Total employee benefit expense</b>	<b>1,537.44</b>	<b>1,398.33</b>

## 33.A. Employee benefit provisions

## i) Pay Revision of Executive and Non Executive Employees

The pay revision of the executive and non-executive employees of the Company is due from 1st January 2017. Accordingly, the Company has provided the estimated liability amounting to Rs.81.74 crore for the period 01.01.2017 to 31.3.2017.

## ii) Diversion to NPS

Out of the 30% cap for superannuation benefit for executive employees, the Company has decided to divert 2% to National Pension Scheme (NPS) out of 6% allocation towards Post Retirement Medical Benefit Scheme (PRMBS). The estimated impact of 2% diversion to National Pension Scheme (NPS) of Rs.35.76 crore which has been provided in the accounts of 2016-17.

## 33.B Employee benefit plans

## 33.B.1 Defined contribution plans

- a) **Provident fund:** The Company pays fixed contribution to Provident Fund at predetermined rates, to a separate trust, which invests the funds in permitted securities. On contributions, the trust is required to pay a minimum rate of interest, to the members, as specified by Govt. of India. Where the trust is unable to pay interest at the declared rate for the reasons that the return on investment is less or for any other reason, then the deficiency shall be made good by the company.
- b) **Pension fund:** The Company pays fixed contribution to the trustee bank of PFRDA, which in turn invests the money with the insurers as specified by the employee concerned. The company's liability is limited only to the extent of fixed contribution.

## 33.B.2 Defined benefit plans

- a) **Gratuity:** Gratuity payable to employees as per The Payment of Gratuity Act subject to a maximum of Rs.10,00,000/. The gratuity scheme is funded by the Company and is managed by a separate trust. The liability for gratuity under the scheme is recognised on the basis of actuarial valuation.



## Notes to the financial statements

- b) **Post retirement medical benefit:** The benefit is available to retired employees and their spouses who have opted for the benefit. Medical treatment as an inpatient can be availed from the Company's hospital/Govt.Hospital/ hospitals as per company's rule.They can also avail treatment as out patient subject to ceiling limit of expenses fixed by the Company.The liability under the scheme is recognised on the basis of actuarial valuation.
- c) **Settling-in-benefit:** On superannuation /retirement/termination of service, if opted for the scheme, the transfer TA is admissible to the employees and / or family for the last head quarters to the hometown or any other place of settlement limited to distance of home town. Transport of personal conveyance shall also be admissible. The liability for the same is recognised on the basis of actuarial valuation.
- d) **NALCO Benevolent Fund Scheme :** The objective of the scheme is to provide financial assistance to families of the members of the scheme who die while in employment of the Company. As per the scheme there will be contribution by members @ Rs.30/- per member per death, in the event of death of a member while in the service of the company and matching contribution by the Company. The liability for the same is recognised on the basis of actuarial valuation.
- e) **NALCO Retirement Welfare Scheme :** The objective of the scheme is to provide financial assistance as a gesture of goodwill for post retirement support to employees retiring from the services of the company. As per the scheme the recovery from each employee member would be Rs. 10/- per retiring member. The Company would provide equivalent sum as matching contribution. The liability for the same is recognised on the basis of actuarial valuation.
- f) **Superannuation gift scheme:** The objective of the scheme is to recognise the employees superannuating or retiring on medical ground from the services of the Company. The scheme includes a gift item worth of Rs. 25000/- per retiring employees to be presented on superannuation/retirement. The liability for the same is recognised on the basis of actuarial valuation.

### 33.3 Other long term employees benefits

- a) **Compensated absences :** The accumulated earned leave, half pay leave & sick leave is payable on separation, subject to maximum permissible limit as prescribed in the leave rules of the Company. During the service period encashment of accumulated leave is also allowed as per company's rule. The liability for the same is recognised on the basis of actuarial valuation.
- b) **Long Service Reward :** The employee who completes 25 years of service are entitled for a long service reward which is equal to one month basic pay and DA. The liability for the same is recognised on the basis of actuarial valuation.
- c) **NEFFARS :** In the event of disablement/death, the Company pays monthly benefit to the employee/ nominee at their option and on deposit of prescribed amount as stipulated under the scheme upto the date of notional superannuation. The liability for the same is recognised on the basis of actuarial valuation.

The employee benefit plans typically expose the Company to actuarial risks such as actuarial risk, investment risk, interest risk, longevity risk and salary risk:-

- i. **Actuarial risk:** It is the risk that benefits will cost more than expected. This can arise due to one of the following reasons:
  - Adverse Salary Growth Experience: Salary hikes that are higher than the assumed salary escalation will result into an increase in obligation at a rate that is higher than expected.
  - Variability in mortality rates: If actual mortality rates are higher than assumed mortality rate assumption than the gratuity benefits will be paid earlier than expected. Since there is no condition of vesting on the death benefit, the acceleration of cashflow will lead to an actuarial loss or gain depending on the relative values of the assumed salary growth and discount rate.
  - Variability in withdrawal rates: If actual withdrawal rates are higher than assumed withdrawal rate assumption than the gratuity benefits will be paid earlier than expected. The impact of this will depend on whether the benefits are vested as at the resignation date.
- ii. **Investment risk:** For funded plans that rely on insurers for managing the assets, the value of assets certified by the insurer may not be the fair value of instruments backing the liability. In such cases, the present value of the assets is independent of the future discount rate. This can result in wide fluctuations in the net liability or the funded status if there are significant changes in the discount rate during the inter-valuation period.
- iii. **Interest risk:** The defined benefit obligation calculated uses a discount rate based on government bonds. If bond yields fall, the defined benefit obligation will tend to increase.
- iv. **Longevity risk:** The present value of the defined benefit plan liability is calculated by reference to the best estimate of the mortality of plan participants both during and after their employment. An increase in the life expectancy of the plan participants will increase the plan's liability.
- v. **Salary risk:** The present value of the defined benefit plan liability is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the plan's liability.

The principal assumptions used for the purposes of the actuarial valuations were as follows:

	Valuation as at		
	31-Mar-17	31-Mar-16	31-Mar-15
Discount rate(s)	7.25%	8.00%	8.00%
Expected rate(s) of salary increase	6%	6%	6%
Mortality	IALM 2006-2008 ULTIMATE	IALM 2006-2008 ULTIMATE	IALM 2006-2008 ULTIMATE
Attrition Rate	1%	1%	1%





## Notes to the financial statements

Amount in Rs. Crores

Amounts recognised in statement of profit and loss in respect of these defined benefits plans are as follows:-

	Year ended 31.03.2017	Year ended 31.03.2016
Service Cost		
Current Service Cost	(35.34)	(63.47)
Net Interest expense	(22.45)	(23.04)
<b>Components of defined benefit costs recognised in profit or loss</b>	<b>(57.79)</b>	<b>(86.51)</b>
Return on the net defined benefit liability:		
Return on the net defined benefit liability	9.35	(3.87)
Actuarial (Gains)/losses arising from changes in financial assumptions	(17.38)	-
Actuarial (Gains)/losses arising from experience assumptions	21.91	21.90
<b>Components of defined benefit costs recognised in other comprehensive income</b>	<b>13.88</b>	<b>18.03</b>
<b>Total</b>	<b>(43.91)</b>	<b>(68.48)</b>

The current service cost and the net interest expense for the year are included in the "Employee benefits expense" line item in the consolidated statement of profit and loss

The remeasurement of the net defined liability is included in other comprehensive income.

The amount included in the balance sheet arising from the entity's obligation in respect of its defined benefit plans is as follows:

	Post retirement medical benefit	Settling-in-benefit	NALCO benevolent fund scheme	NALCO retirement welfare scheme	Superannuation gift scheme	Gratuity (Funded)
<b>April 01, 2015</b>						
Present value of defined benefit obligation	(72.41)	(5.98)	-	-	-	(293.76)
Fair value of plan assets	-	-	-	-	-	291.71
Net liability arising from defined benefit obligation	<b>(72.41)</b>	<b>(5.98)</b>	-	-	-	<b>(2.05)</b>
<b>March 31, 2016</b>						
Present value of defined benefit obligation	(61.24)	(2.74)	(3.94)	(13.13)	(6.92)	(298.02)
Fair value of plan assets	-	-	-	-	-	290.25
Net liability arising from defined benefit obligation	<b>(61.24)</b>	<b>(2.74)</b>	<b>(3.94)</b>	<b>(13.13)</b>	<b>(6.92)</b>	<b>(7.77)</b>
<b>March 31, 2017</b>						
Present value of defined benefit obligation	(64.31)	(2.41)	(3.86)	(13.84)	(7.34)	(314.04)
Fair value of plan assets	-	-	-	-	-	302.10
Net liability arising from defined benefit obligation	<b>(64.31)</b>	<b>(2.41)</b>	<b>(3.86)</b>	<b>(13.84)</b>	<b>(7.34)</b>	<b>(11.94)</b>

Notes to the financial statements

Amount in Rs. Crores

Movements in the present value of the defined benefit obligations are as follows:

	Post retirement medical benefit	Settling-in-benefit	NALCO benevolent fund scheme	NALCO retirement welfare scheme	Superannuation gift scheme	Gratuity (Funded)
<b>Opening defined benefit obligations as at April 01, 2015</b>	(72.41)	(5.98)	-	-	-	(293.76)
Current service cost	(5.65)	(5.37)	(3.94)	(13.13)	(6.92)	(28.46)
Interest Cost	-	(0.46)	-	-	-	(22.58)
<b>Remeasurement</b>						
Actuarial (Gains)/losses arising from experience assumptions	13.33	8.61				(0.04)
Benefits paid	3.49	0.46				22.97
Others	-	-	-	-	-	23.85
<b>Closing defined benefit obligation as at March 31, 2016</b>	<b>(61.24)</b>	<b>(2.74)</b>	<b>(3.94)</b>	<b>(13.13)</b>	<b>(6.92)</b>	<b>(298.02)</b>
Current service cost	(4.32)	(0.44)	-	-	-	(30.58)
Interest Cost	-	(0.18)	(0.27)	(0.89)	(0.48)	(20.63)
<b>Remeasurement</b>						
Actuarial (Gains)/losses arising from changes in financial assumptions	(1.12)	(0.11)	(0.12)	(0.56)	(0.39)	(15.08)
Actuarial (Gains)/losses arising from experience assumptions	(0.89)	0.64	(0.03)	(0.92)	(0.17)	23.28
Benefits paid	3.26	0.42	0.50	1.66	0.61	27.00
<b>Closing defined benefit obligation as at March 31, 2017</b>	<b>(64.31)</b>	<b>(2.41)</b>	<b>(3.86)</b>	<b>(13.84)</b>	<b>(7.35)</b>	<b>(314.03)</b>

Movements in the fair value of the plan assets are as follows:

	Gratuity (Funded)
<b>Opening fair value of plan assets as at April 01, 2015</b>	291.71
Interest income	23.33
<b>Remeasurement</b>	
Return on plan assets (excluding amounts included in net interest income)	(3.87)
Contribution from the employer	2.05
Benefits paid	(22.97)
<b>Closing fair value of plan assets as at March 31, 2016</b>	<b>290.25</b>
Interest income	21.04
<b>Remeasurement</b>	
Return on plan assets (excluding amounts included in net interest income)	9.35
Others (describe)	
Contribution from the employer	8.46
Benefits paid	(27.00)
<b>Closing fair value of plan assets as at March 31, 2017</b>	<b>302.10</b>

The fair value of the plan assets at the end of the reporting period for each category, are as follows

		Fair value of plan assets as at		
		31-Mar-17	31-Mar-16	31-Mar-15
1.	Investments in Funds:			
	Insurance Companies	302.10	290.25	291.71
	<b>Total</b>	<b>302.10</b>	<b>290.25</b>	<b>291.71</b>

## Notes to the financial statements

## 33B. SENSITIVITY ANALYSIS OF DEFINED BENEFIT PLANS

Significant actuarial assumption for determination of defined benefit plan are discount rate, expected salary growth, attrition rate and mortality rate. The sensitivity analysis below have been based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period while holding all other assumptions constant.

## Sensitivity Analysis

Amount in Rs. Crores

Particulars	Post retirement medical benefit		Settling-in-benefit		NALCO benevolent fund scheme	
	Increase by	Decrease by	Increase by	Decrease by	Increase by	Decrease by
<b>2015-16</b>						
<b>Impact on amount due to change in Discount rate (-/+0.5%)</b>	2.65	2.59	0.08	0.08	0.08	0.08
% Change compared to base due to sensitivity [+ /(-)%	4.33%	4.23%	3.08%	2.91%	2.13%	2.04%
<b>Impact on amount due to change in Salary growth (+/-0.5%)</b>	1.06	1.24	0.00	0.00	-	0.00
% Change compared to base due to sensitivity [+ /(-)%	1.72%	2.03%	0.00%	0.00%	0.00%	0.00%
<b>Impact on amount due to change in Attrition rate (+/-0.5%)</b>	0.18	0.18	-	-	-	0.00
% Change compared to base due to sensitivity [+ /(-)%	0.29%	0.29%	0.08%	0.08%	0.07%	0.07%
<b>Impact on amount due to change in Morality rate (-/+10%)</b>	0.14	0.14	0.01	0.01	-	-
% Change compared to base due to sensitivity [+ /(-)%	0.22%	0.22%	0.51%	0.51%	0.03%	0.03%
Particulars	NALCO retirement welfare scheme		Superannuation gift scheme		Gratuity (Funded)	
2015-16	Increase by	Decrease by	Increase by	Decrease by	Increase by	Decrease by
<b>Impact on amount due to change in Discount rate (-/+0.5%)</b>	0.38	0.36	0.26	0.25	10.18	9.60
% Change compared to base due to sensitivity [+ /(-)%	2.87%	2.74%	3.83%	3.60%	3.42%	3.22%
<b>Impact on amount due to change in Salary growth (+/-0.5%)</b>	-	-	-	-	1.24	1.40
% Change compared to base due to sensitivity [+ /(-)%	0.00%	0.00%	0.00%	0.00%	0.42%	0.47%
<b>Impact on amount due to change in Attrition rate (+/-0.5%)</b>	0.01	0.01	-	-	0.35	0.35
% Change compared to base due to sensitivity [+ /(-)%	0.05%	0.05%	0.06%	0.06%	0.12%	0.12%
<b>Impact on amount due to change in Morality rate (-/+10%)</b>	-	-	-	-	2.11	2.11
% Change compared to base due to sensitivity [+ /(-)%	0.02%	0.02%	0.03%	0.03%	0.71%	0.71%
Particulars	Post retirement medical benefit		Settling-in-benefit		NALCO benevolent fund scheme	
2016-17	Increase by	Decrease by	Increase by	Decrease by	Increase by	Decrease by
<b>Impact on amount due to change in Discount rate (-/+0.5%)</b>	2.95	2.77	0.08	0.07	0.08	0.08
% Change compared to base due to sensitivity [+ /(-)%	4.58%	4.31%	3.19%	3.02%	2.14%	2.07%
<b>Impact on amount due to change in Salary growth (+/-0.5%)</b>	1.43	1.12	0.00	0.00	0.00	0.00
% Change compared to base due to sensitivity [+ /(-)%	2.23%	1.74%	0.00%	0.00%	0.00%	0.00%
<b>Impact on amount due to change in Attrition rate (+/-0.5%)</b>	0.20	0.20	-	-	-	-
% Change compared to base due to sensitivity [+ /(-)%	0.31%	0.31%	0.06%	0.06%	0.07%	0.07%
<b>Impact on amount due to change in Morality rate (-/+10%)</b>	0.14	0.14	0.01	0.01	-	-
% Change compared to base due to sensitivity [+ /(-)%	0.21%	0.21%	0.51%	0.51%	0.03%	0.03%
Particulars	NALCO retirement welfare scheme		Superannuation gift scheme		Gratuity (Funded)	
2016-17	Increase by	Decrease by	Increase by	Decrease by	Increase by	Decrease by
<b>Impact on amount due to change in Discount rate (-/+0.5%)</b>	0.40	0.38	0.28	0.27	10.70	10.07
% Change compared to base due to sensitivity [+ /(-)%	2.86%	2.71%	3.82%	3.62%	3.41%	3.21%
<b>Impact on amount due to change in Salary growth (+/-0.5%)</b>	-	-	-	-	1.35	1.52
% Change compared to base due to sensitivity [+ /(-)%	0.00%	0.00%	0.00%	0.00%	0.43%	0.48%
<b>Impact on amount due to change in Attrition rate (+/-0.5%)</b>	0.01	0.01	-	-	0.34	0.34
% Change compared to base due to sensitivity [+ /(-)%	0.04%	0.04%	0.05%	0.05%	0.11%	0.11%
<b>Impact on amount due to change in Morality rate (-/+10%)</b>	-	-	-	-	2.11	2.11
% Change compared to base due to sensitivity [+ /(-)%	0.03%	0.03%	0.03%	0.03%	0.67%	0.67%

The sensitivity analysis presented above may not be representative of the actual change in the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Furthermore, in presenting the above sensitivity analysis, the present value of defined benefit obligation has been calculated using projected unit credit method at the end of the reporting period, which is same as that applied in calculating the defined benefit obligation liability recognised in the balance sheet.

There is no change in the methods and assumptions used in preparing the sensitivity analysis from prior years.



## Notes to the financial statements

Amount in Rs. Crores

### 34. FINANCE COSTS

	Year ended 31.03.2017	Year ended 31.03.2016
(a) Interest on dismantling and constructive obligations	2.31	2.06
(b) Other finance cost	0.38	1.21
<b>Total finance costs</b>	<b>2.69</b>	<b>3.27</b>

### 35. DEPRECIATION AND AMORTISATION EXPENSE

	Year ended 31.03.2017	Year ended 31.03.2016
Depreciation of property, plant and equipment	467.36	413.47
Amortisation of intangible assets	13.00	12.65
<b>Total depreciation and amortisation</b>	<b>480.36</b>	<b>426.12</b>

### 36. EXCISE DUTY

	Year ended 31.03.2017	Year ended 31.03.2016
(a) Excise duty on removal of goods	491.85	452.64
(b) Excise duty on closing stock (accretion/ depletion)	15.13	(0.37)
<b>Total excise duty</b>	<b>506.98</b>	<b>452.27</b>

### 37. OTHER EXPENSES

	Year ended 31.03.2017	Year ended 31.03.2016
(a) Stores and spares consumed	318.57	335.44
(b) Repair and maintenance to		
(1) Buildings	30.49	44.98
(2) Machinery	138.71	127.84
(3) Others	20.16	18.83
(c) Other Manufacturing Expenses		
(1) Water charges	24.18	24.18
(2) Royalty	108.53	93.14
(3) Contribution to District Mineral Fund and National Mineral Exploration Trust	34.73	36.31
(4) Continuous Technical Assistance expenses	8.52	9.77
(5) Others	54.47	53.80
(d) Freight and handling charges		
(1) Incoming materials (Alumina)	102.16	97.31
(2) Outgoing materials	163.97	155.51
(e) Auditors remuneration and out-of-pocket expenses		
(i) As Auditors	0.26	0.20
(ii) For Taxation matters	0.05	0.04
(iii) For Other services	0.21	0.16
(iv) For reimbursement of expenses	0.02	0.02
(f) Payment to Cost Auditors	0.03	0.02
(g) Security and fire fighting expenses	104.57	90.31
(h) Corporate social responsibility expenses [refer note 37.1]	29.69	27.17
(i) Administrative and general expenses	97.94	74.55
(j) Renewable purchase obligation	63.02	30.35
(k) Provision towards disputed Government dues and others	178.12	140.22
(l) Selling and distribution expenses	27.83	26.82
(m) Write off of Inventories, Claims etc	27.96	9.61
(n) Bad and doubtful Provisions	56.93	63.01
(o) Others	37.10	39.55
<b>Total other expenses</b>	<b>1,628.22</b>	<b>1,499.14</b>

## Notes to the financial statements

## 37. OTHER EXPENSES

## Note:

<b>37.1 Expenditure on Corporate Social Responsibility.</b>		
a)	Gross amount to be spent by the company during the year ended March 31, 2017 is Rs. 27.56 crore ( March 31, 2016 Rs. 26.24 crore)	
b)	Amount spent during the year ended March 31, 2017	
i)	Construction/ acquisition of assets	Rs. 0.32 crore (previous year Rs. Nil.)
ii)	On purpose other than (i) above	Rs. 29.69 crore (previous year Rs. 27.17 crore)
	<b>Total</b>	<b>Rs. 30.01 crore (previous year Rs.27.17 crore)</b>

## 38. EXCEPTIONAL ITEMS AND EXTRAORDINARY ITEMS

	Year ended 31.03.2017	Year ended 31.03.2016
<b>Exceptional items</b>		
Other (income)/ expenses	40.15	(53.45)
<b>Total exceptional items</b>	<b>40.15</b>	<b>(53.45)</b>

## Note:

- 38.1 Taking a cue from the Special Leave Petitions (SLPs) filed by other major assesses of Odisha, challenging the judgment of Hon'ble High Court of Odisha regarding levy of entry tax on imported goods, the Company also filed SLP before Hon'ble Supreme Court of India which was admitted. After examining the decision of various High Courts, the Supreme Court finally referred the matter to bench of 9 judges .

The 9 judge bench of Hon'ble Supreme Court in their judgement dated 11.11.2016 in the matter of Constitutional validity of entry tax and imposition of entry tax on imported goods have decided the constitutional validity of entry tax in favour of the State. But the Apex Court left open the matter on levy of entry tax on imported goods to be decided by the divisional bench of Supreme Court. However, on perusal of findings of individual judges given in the judgment dated 11.11.2016, prima facie it appears in favour of the State. In consultation with legal experts, the Company has recognized Rs.37.90 crore towards liability for entry tax on imported goods during the year based on the demand for Entry Tax on imports made by State Govt up to 31.3.2017. The demand for entry tax pertaining to earlier years has been recognized in the current year based on court judgement, hence considered as exceptional item. Liability on account of Entry tax on import for current year amounting to Rs.3.97 crore has been charged to profit or loss for the current year. Against the total liability for entry tax on import for Rs.41.88 crore, an amount of Rs26.33 crore has already been paid to State Govt. under protest.

Besides, on account of arbitration settlement arising out of dispute between the Company and M/s KC&CC, an amount of Rs.2.25 crore has been provided which has been considered as an exceptional item.

- 38.2 Exceptional item for the previous year relates to an amount of Rs. 53.45 crore (USD 8.05 million) received from M/s. Peak Chemicals towards final settlement of risk and cost claim on them due to non-supply of caustic soda.

Notes to the financial statements

Amount in Rs. Crores

39. INCOME TAXES

39.1 Income tax recognised in profit or loss		Year ended 31.03.2017	Year ended 31.03.2016
<b>Current tax</b>			
In respect of the current year		219.57	375.60
In respect of the prior years		(0.05)	(8.67)
		<b>219.52</b>	<b>366.93</b>
<b>Deferred tax</b>			
In respect of the current year		97.81	34.61
In respect of the prior years		(3.68)	-
Others (MAT credit entitlement)		(17.46)	-
		<b>76.67</b>	<b>34.61</b>
<b>Total income tax expense recognised in the current year</b>		<b>296.19</b>	<b>401.54</b>
<b>The income tax expense for the year can be reconciled to the accounting profit as follows:</b>			
Profit before tax		<b>964.72</b>	<b>1,188.65</b>
		<b>333.87</b>	<b>411.37</b>
Income tax expense thereon @ 34.608% :			
Tax effect of -			
i)	income exempt from taxation	(12.39)	(1.80)
ii)	disallowable expenses	10.24	9.68
iii)	expenses allowable in excess of expenditure incurred	(0.97)	(0.63)
iv)	effect of concessions (research and development and other allowances)	(21.94)	(4.65)
v)	temporary differences	(9.40)	(5.52)
vi)	Others (interest and previous year taxes)	(3.22)	(6.91)
<b>Income tax expense recognised in profit or loss</b>		<b>296.19</b>	<b>401.54</b>
39.2 Income tax recognised directly in equity			
<b>Current tax</b>			
Share buy-back costs		(3.06)	
<b>Income tax recognised directly in equity</b>		<b>(3.06)</b>	<b>-</b>
39.3 Income tax recognised in other comprehensive income			
<b>Deferred tax</b>			
Arising on Income and expenses recognised in other comprehensive income			
- Remeasurements of defined benefit obligation		4.80	14.21
<b>Total income tax recognised in other comprehensive income</b>		<b>4.80</b>	<b>14.21</b>
Bifurcation of the income tax recognised in other comprehensive income into:			
Items that will be reclassified to profit or loss		-	-
Items that will not be reclassified to profit or loss		4.80	14.21

Note:

During the year, current tax has been provided based on Minimum Alternate Tax (MAT) as per book profit computed for the year. Consequently MAT credit entitlement has been adjusted with deferred tax.

## Notes to the financial statements

## 40. SEGMENT INFORMATION

## 40.1 Products from which reportable segments derive their revenues

Information reported to the chief operating decision maker (CODM) for the purpose of resource allocation and assessment of segment performance focuses on the types of goods delivered. The directors of the company have chosen to organise the Company around differences in products. No reporting segment have been aggregated in arriving at the reportable segments in the Company. Specifically, the Company's reportable segment under Ind AS 108- Operating Segments are as follows:

- i) Chemical segment
- ii) Aluminium segment

The Company has considered Chemicals and Aluminium as the two primary operating business segments. Chemicals include Calcined Alumina, Alumina Hydrate and other related products. Aluminium includes aluminium ingots, wire rods, billets, strips, rolled and other related products. Bauxite produced for captive consumption for production of alumina is included under chemicals and power generated for captive consumption for production of Aluminium is included under Aluminium segment. Wind Power Plant commissioned primarily to harness the potential renewable energy sources is included in the unallocated Common segment.

## 40.2 Segment revenues and results

Amount in Rs. Crores

The following is an analysis of the Company's revenue and results from operations by reportable segment			
Operating Segments	Segment revenue		
	Year ended 31.03.2017	Year ended 31.03.2016	
Chemical segment	4046.21	3684.98	
Aluminium segment	5537.42	5016.60	
Unallocated	108.64	80.65	
<b>Total for operations</b>	9,692.27	8,782.23	
Less: Inter segment revenue	1,642.25	1,513.00	
<b>Revenue from operations</b>	<b>8,050.02</b>	<b>7,269.23</b>	
Segment results			
Operating Segments	Segment results		
	Year ended 31.03.2017	Year ended 31.03.2016	
Chemical segment	976.92	907.42	
Aluminium segment	(224.78)	(175.28)	
<b>Segment result before exceptional items, interest and tax</b>	<b>752.14</b>	<b>732.14</b>	
Exceptional Income/(Expenses)	(40.15)	53.45	
Interest & financing charges	2.69	3.27	
Interest and dividend income	383.03	548.20	
Other unallocated income net of unallocated expenses	(127.61)	(141.87)	
<b>Profit before tax</b>	<b>964.72</b>	<b>1,188.65</b>	

## 40.3 Segment assets and liabilities

	Segment Assets		Segment Liabilities	
	As at 31.03.2017	As at 31.03.2016	As at 31.03.2017	As at 31.03.2016
Chemical segment	3,643.06	3,703.89	780.06	596.36
Aluminium segment	5,165.16	5,177.83	1,902.94	1,346.94
<b>Total segment assets and liabilities</b>	<b>8,808.22</b>	<b>8,881.73</b>	<b>2,683.00</b>	<b>1,943.30</b>
Unallocated	5,693.44	7,828.46	367.28	462.07
<b>Total assets and Liabilities</b>	<b>14,501.65</b>	<b>16,710.19</b>	<b>3,050.28</b>	<b>2,405.37</b>



## Notes to the financial statements

Amount in Rs. Crores

### 40.4 Other segment information

	Depreciation and amortisation		Additions to non-current assets	
	Year ended 31.03.2017	Year ended 31.03.2016	Year ended 31.03.2017	Year ended 31.03.2016
Chemical segment	165.49	173.01	(3.10)	(24.58)
Aluminium segment	232.17	270.62	(67.90)	(147.68)
Unallocated	28.45	36.72	(449.67)	1,264.77
<b>Total for operations</b>	<b>426.12</b>	<b>480.36</b>	<b>(520.68)</b>	<b>1,092.51</b>

### 40.5 Revenue from major products

The following is an analysis of the Company's revenue from continuing operations from its major products and services

	Year ended 31.03.2017	Year ended 31.03.2016
Chemical segment (Hydrate and Alumina)	2,584.25	2,318.19
Aluminium segment (Aluminium)	5,272.19	4,782.84
	<b>7,856.44</b>	<b>7,101.03</b>

### 40.6 Geographical information

The Company operates mainly in principal geographical areas-India (country of domicile) and Outside India

	Revenue from external customers		Non-current assets		
	Year ended 31.03.2017	Year ended 31.03.2016	As at 31.03.2017	As at 31-Mar-16	As at 01-Apr-15
India	4,231.45	3,854.16	8,845.86	9,366.54	8,274.03
Outside India	3,624.99	3,246.87	-	-	-
<b>Total</b>	<b>7,856.44</b>	<b>7,101.03</b>	<b>8,845.86</b>	<b>9,366.54</b>	<b>8,274.03</b>

#### Note:

- Inter-segment transfer of Calcined Alumina is considered at average sales realization from export sales during the period less freight from Refinery to Port at Vizag plus export incentive. Transfer of power from Aluminium segment to Chemical segment is considered at the annual/periodic average purchase price of power from State Grid at Alumina Refinery.
- Revenue and expenses have been identified to segments on the basis of their relationship to the operating activities. Revenue, expenses, assets and liabilities, which relate to the enterprise as a whole and are not allocable on a reasonable basis, have been included under Unallocated Common segment.



## Notes to the financial statements

## 41. EARNINGS PER SHARE

	Year ended 31.03.2017	Year ended 31.03.2016
	Rs. per share	Rs. per share
<b>41.1 Basic Earnings per share (Rs.)</b>		
From total operations	2.98	3.05
<b>Total Basic earnings per share</b>	<b>2.98</b>	<b>3.05</b>
<b>41.2 Basic Earnings per Share</b>		
The Earnings and weighted average number of equity shares used in the calculation of basic earnings per share are as follows		
	Year ended 31.03.2017	Year ended 31.03.2016
Profit for the year attributable to Owners of the Company	668.53	787.11
<b>Earnings used in the calculation of basic earnings per share</b>	<b>668.53</b>	<b>787.11</b>
	As at 31.03.2017	As at 31.03.2016
<b>Weighted average number of equity shares used in calculation of basic earnings per share (in crore)</b>	<b>224.71</b>	<b>257.72</b>

## 42. FINANCIAL INSTRUMENTS

42.1 Categories of financial instruments		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Financial Assets</b>				
Measured at fair value through profit or loss (FVTPL)				
(a)	Mandatorily measured:			
(i)	Investments in mutual funds	1221.13	1009.28	1021.06
(ii)	Forward contract on foreign currency	Nil	0.92	Nil
Measured at Amortised cost				
(a)	Cash and bank balances	24.83	654.42	3.68
(b)	Other financial assets at amortised cost	2,770.76	4,986.41	5,227.62
		<b>4,016.72</b>	<b>6,651.03</b>	<b>6,252.36</b>
<b>Financial Liabilities</b>				
Measured at Amortised cost		1,386.62	1,059.79	1,064.73

## 42.2 Financial risk management objectives

In the course of its business, the Company is exposed primarily to fluctuations in foreign currency exchange rates, interest rates, equity prices, liquidity and credit risk, which may adversely impact the fair value of its financial instruments. The Company has a risk management policy which not only covers the foreign exchange risks but also other risks associated with the financial assets and liabilities such as interest rate risks and credit risks.

The objectives of the Company's risk management policy are, inter-alia, to ensure the following:

- Ensure sustainable business growth with financial stability;
  - Provide a strategic framework for Nalco's risk management process in alignment with the strategic objectives including the risk management organisation structure;
  - Ensure that all the material risk exposures of Nalco, both on and off-balance sheet are identified, assessed, quantified, appropriately mitigated and managed and
  - Ensure Nalco's compliance with appropriate regulations, wherever applicable, through the voluntary adoption of international best practices, as far as may be appropriate to the nature, size and complexity of the operations.
- The risk management policy is approved by the board of directors. The Internal Control team would be responsible to evaluate the efficacy and implementation of the risk management system. It would present its findings to the Audit Committee every quarter. The Board is responsible for the Company's overall process of risk management. The Board shall, therefore, approve the compliance and risk management policy and any amendments thereto, and ensure its smooth implementation.



## Notes to the financial statements

### 4.2.3 Market risk

Market risk is the risk of any loss in future earnings (spreads), in realizable fair values (economic value) or in future cash flows that may result from a change in the price of a financial instrument. The value of a financial instrument may change as a result of changes in the interest rates, foreign currency exchange rates, liquidity and other market changes. The Company may also be subjected to liquidity risk arising out of mismatches in the cash flows arising out of sales proceeds and funds raised and loan repayments/prepayments. Future specific market movements cannot be normally predicted with reasonable accuracy.

### 4.2.4 Foreign currency risk management

Foreign currency risk emanates from the effect of exchange rate fluctuations on foreign currency transactions. The overall objective of the currency risk management is to protect the Company's income arising from changes in foreign exchange rates. The policy of the Company is to avoid any form of currency speculation. Hedging of currency exposures shall be effected either naturally through offsetting or matching assets and liabilities of similar currency, or in the absence of thereof, through the use of approved derivative instruments transacted with reputable institutions. The Currency risk is measured in terms of the open positions in respective currencies vis-à-vis The Company's operating currency viz. INR. A currency gap statement shall be prepared to find the gap due to currency mismatch.

The fluctuation in foreign currency exchange rates may have impact on the income statement and equity, where any transaction references more than one currency or where assets/liabilities are denominated in a currency other than the functional currency of the respective consolidated entities.

The Company undertakes transactions denominated in foreign currency; consequently, exposures to exchange rate fluctuations arise. Exchange rate are managed within approved policy parameters utilising forward foreign exchange contracts.

The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period are as follows:-

	Amount in Rs. Crores					
	Liabilities as at			Assets as at		
	31-Mar-17	31-Mar-16	01-Apr-15	31-Mar-17	31-Mar-16	1-Apr-15
USD	1.96	2	2.02	98.57	199.17	0
EURO	2.57	4.94	12.04	-	-	0
Others	-	-	-	-	-	1.49

### 4.2.4.1 Foreign currency sensitivity analysis

The Company evaluates the impact of foreign exchange rate fluctuations by assessing its exposure to exchange rate risks. It hedges a part of these risks by using derivative financial instruments in accordance with its risk management policies.

The foreign exchange rate sensitivity is calculated for each currency by aggregation of the net foreign exchange rate exposure of a currency and a simultaneous parallel foreign exchange rates shift in the foreign exchange rates of each currency by 10%.

The following analysis is based on the gross exposure as of the relevant balance sheet dates, which could affect the income statement. There is no exposure to the income statement on account of translation of financial statements of consolidated foreign entities.

The following table sets forth information relating to foreign currency exposure as at March 31, 2017, March 31, 2016 and April 01, 2015:

	USD impact		EURO impact		JPY impact	
	Year ended 31.03.2017	Year ended 31.03.2016	Year ended 31.03.2017	Year ended 31.03.2016	Year ended 31.03.2017	Year ended 31.03.2016
Impact on profit or loss for the year	9.7	19.7	0.26	0.49	0.0	0.0

### 4.2.5 Other price risks

#### 4.2.5.1 Equity price sensitivity analysis

The Company is not exposed to equity price risk arising from equity instruments as all the equity investments are held for strategic rather than trading purposes.

### 4.2.6 Credit risk management

Credit risk is the risk of financial loss arising from counterparty failure to repay or service debt according to the contractual terms or obligations. Credit risk encompasses both the direct risk of default and the risk of deterioration of creditworthiness as well as concentration risks. There is no significant credit exposure as advance collection from customer is made.

Financial instruments that are subject to concentrations of credit risk, principally consist of investments classified as loans and receivables, trade receivables, loans and advances and derivative financial instruments. None of the financial instruments of the Company result in material concentrations of credit risks.

### 4.2.7 Liquidity risk management

Liquidity risk refers to the risk that the Company cannot meet its financial obligations. The objective of liquidity risk management is to maintain sufficient liquidity and ensure that funds are available for use as per requirements.

Company has established an appropriate liquidity risk management framework for the management of the Company's short-term, medium-term and long-term funding liquidity management requirements. The Company manages liquidity risk by maintaining adequate reserves and banking facilities by continuously monitoring forecast and actual cashflows and by matching the maturity profiles of financial assets and financial liabilities.



## Notes to the financial statements

### 43. RELATED PARTY DISCLOSURES

#### 43.1 Related parties

##### A. Key Managerial Personnel:

###### I) Whole time Directors

- |                            |  |
|----------------------------|--|
| (a) Dr T K Chand           | Chairman Cum Managing Director                 |
| (b) Shri K C Samal         | Director (Finance)                             |
| (c) Shri V Balasubramanyam | Director (production)                          |
| (d) Shri B K Thakur        | Director (HR) w.e.f 04.07.2016                 |
| (e) Shri S K Roy           | Director (Proj & Tech) w.e.f 03.02.2017        |
| (f) Shri S.C. Padhy        | Director (Human Resources) up to 30.6.2016     |
| (g) Shri N.R. Mohanty      | Director (Project & Technical) up to 31.1.2017 |
| (h) Ms Soma Mondal         | Director (Commercial) up to 28.2.2017          |

###### Others

Shri K N Ravindra

Executive Director-Company Secretary

###### II) Part time Official Directors: (Nominee of Govt. of India):

- Shri Subhash Chandra ( w.e.f 20.10.2016)
- Dr N K Singh, IFS ( w.e.f 15.3.2017)
- Shri R Sridharan, IAS ( up to 2.1.2017)
- Shri N B Dhal, IAS ( up to 19.10.2016)

###### III) Part time non official (Independent) Directors:

- Shri Dipankar Mahanta
- Shri S Sankararaman
- Shri Pravat Keshari Nayak
- Prof.Damodar Acharya
- Shri Maheswar Sahu
- Ms.Kiran Ghai Sinha ( wef 03.02.2017)

##### B. Joint Ventures & associates

- Angul Aluminium Park Pvt Ltd.
- NPCIL-NALCO power company Ltd
- GACL NALCO Alkalis & Chemicals Limited

##### C. Post Employment Benefit Plan

- Nalco Employees Provident Fund Trust
- Nalco Employees Group Gratuity Trust

##### D. Entity controlled by a person identified in (A) as KMP

- Nalco Foundation

##### E. Government that has control or significance influence:

- Govt. Of India

##### F. Entities on which Govt of India has control or significant influence (CPSEs)

The Company has major business transactions during the year with the following CPSEs.

###### i) Purchase of Goods and Services

- Indian Oil Corporation Ltd.
- Bharat Petroleum Corporation Ltd.
- Hindustan petroleum Corporation Ltd.
- Mahandai Coal Fields Ltd.
- Northern Coalfields Ltd.

Notes to the financial statements

- f) Singareni Collieries Ltd.
  - g) Western Coalfields Ltd.
  - h) Numaligarh Refinery Ltd.
  - i) Bharat Earthmovers Ltd.
  - j) Bharat Heavy Electrical Ltd.
  - k) Mineral Exploration Corporation Ltd.
  - l) Balmer Lawrie & Co.
  - m) East Coast railways
  - n) Vizag Port Trust
- ii) **Sale of Goods**
- a) National Small Industries Corporation (NSIC)
  - b) Steel Authority of India Ltd.
  - c) Rashtriya Ispat Nigam Ltd.
  - d) National Thermal Power Corporation Ltd.

43.2 Related Party Transactions

Amount in Rs. Crores

Particulars		Year ended 31.03.2017	Year ended 31.03.2016
<b>I. Key Managerial Personnel</b>			
<b>Remuneration to Key Managerial Personnel</b>			
<b>Particulars</b>		<b>Year ended 31.03.2017</b>	<b>Year ended 31.03.2016</b>
Salaries		3.04	2.78
Contribution to Provident Fund		0.20	0.17
Medical Benefits		0.01	0.02
Other Benefits		0.03	0.03
<b>Total</b>		<b>3.28</b>	<b>3.00</b>
<b>Loans / advances due from Key Managerial Personnel</b>			
<b>Particulars</b>		<b>As at 31.03.2017</b>	<b>As at 31.03.2016</b>
Outstanding at the end of the year		0.04	0.06
Maximum amount due at any time during the year		0.09	0.10
<b>II. Joint Venture Companies</b>			
During the year the company has made following transaction with the JVs.			
<b>Name of JV</b>	<b>Nature of Transaction</b>	<b>Year ended 31.03.2017</b>	<b>Year ended 31.03.2016</b>
Angul Aluminium Park Pvt Ltd.	Equity contribution ( share application money)	13.71	-
NPCIL-NALCO power company Ltd	-	-	-
GACL NALCO Alkalis & Chemicals Limited	Equity Contribution ( share application money)	22.8	-
GACL NALCO Alkalis & Chemicals Limited	Receivable- man power assistance	0.24	0.23

## Notes to the financial statements

<b>Balance at the end of the reporting day</b>			
Name of JV	Nature of Transaction	As at 31.03.2017	As at 31.03.2016
Angul Aluminium Park Pvt Ltd.	Investment in equity	14.7	0.99
NPCIL-NALCO power company Ltd	Investment in equity	0.03	0.03
GACL NALCO Alkalis & Chemicals Limited	Investment in equity	24.8	2.00
GACL NALCO Alkalis & Chemicals Limited	Receivable- Man power assistance	0.47	0.23

Note: Investment in Equity in M/s Angul Aluminium Park Pvt. Ltd and M/s GACL NALCO Alkalis & Chemicals Limited includes share application money (fully paid) for Rs.13.71 Crore and Rs.22.80 crore for which shares are yet to be allotted.

<b>III. Post Employment Benefit Plan</b>			
<b>Transactions during the year</b>			
Name of Trust	Nature of Transaction	Year ended 31.03.2017	Year ended 31.03.2016
NEPF Trust	PF-Contribution	95.79	92.19
NEGG Trust	Funding of shortfall	8.46	2.05
<b>Outstanding balance at the end of the year</b>			
Name of Trust	Nature of Transaction	As at 31.03.2017	As at 31.03.2016
NEPF Trust	PF-Contribution payable	21.2	23.03
NEGG Trust	Funding of shortfall payable	3.02	2.30

<b>IV. Nalco Foundation</b>			
Particulars	Year ended 31.03.2017	Year ended 31.03.2016	
Contribution to CSR Trust	7.00	5.00	

<b>V. Govt. Of India : Transaction during the year</b>			
Particulars	Year ended 31.03.2017	Year ended 31.03.2016	
Buyback of shares	2835	-	
Final Dividend-2015-16	108.11	-	
Interim Dividend-2016-17	403.62	-	
Final Dividend-2014-15	-	104.29	
Interim Dividend-2015-16	-	260.73	

<b>VI. CPSEs/ Govt Undertakings – Transaction during the year</b>			
Particulars	Year ended 31.03.2017	Year ended 31.03.2016	
Purchase of goods and services from CPSEs/ Govt undertakings	1392.11	1283.68	
Sale of goods to CPSEs and Govt undertakings	1016.21	892.66	
<b>Outstanding Balance as on the year ending day</b>			
Particulars	As at 31.03.2017	As at 31.03.2016	
Payable for purchase of goods and services from CPSEs/ Govt. undertakings	92.3	74.19	
Receivable for sale of goods to CPSEs and Govt undertakings	0.41	5.31	



## Notes to the financial statements

### 44 OFFER FOR SALE (OFS) (EVENTS OCCURRING AFTER BALANCE SHEET DATE)

The Govt. of India sold 14,24,55,941 shares to non-retail investors and 3,56,13,986 shares to retail investors on 19th April, 2017 and 20th April, 2017 respectively through stock exchange mechanism comprising in total, 9.2125% of the paidup capital of the Company. Post OFS, the total shares held by the President of India have come down from 74.58% to 65.36% of the total paid-up capital of Rs. 966.47 crores.

### 45 REGROUPING OF PREVIOUS YEAR'S FIGURES

Previous year's figures have been regrouped/rearranged wherever necessary to make them comparable

Amount in Rs. Crores

46.1. Correction of errors identified during the year ended March 31, 2017							
46.1.1. Adjustments for error corrections in the balance sheet as at March 31, 2016 and April 01, 2015							
		As at 31.03.2016			As at 31.03.2015		
Particulars	Previous GAAP (as reported)	Adjustment for prior period errors	Revised Previous GAAP Balances	Previous GAAP (as reported)	Adjustment for prior period errors	Revised Previous GAAP Balances	
<b>I. Non-current assets</b>							
(i) Property, plant and equipment	6,328.89	1.01	6,329.90	6,509.21	(1.22)	6,507.99	
(ii) Capital work-in-progress	661.36	1.39	662.75	549.73	(0.42)	549.31	
(iii) Other intangible assets	138.61	-	138.61	136.21	-	136.21	
(iv) Intangible assets under development	-	-	-	-	-	-	
(v) Financial assets:-							
I. Investment:-							
(a) Investments in associates	-	-	-	-	-	-	
(b) Investments in joint ventures	-	-	-	-	-	-	
(c) Other Investments	811.08	-	811.08	1.04	-	1.04	
II. Trade receivables	-	-	-	-	-	-	
III. Loans	1,347.55	-	1,347.55	1,221.85	-	1,221.85	
IV. Other financial assets	-	-	-	-	-	-	
(vi) Other non-current assets	49.48	-	49.48	47.45	-	47.45	
<b>Total non-current assets</b>	<b>9,336.97</b>	<b>2.40</b>	<b>9,339.37</b>	<b>8,465.49</b>	<b>(1.64)</b>	<b>8,463.85</b>	
<b>II. Current assets</b>							
(i) Inventories	1,126.97	-	1,126.97	1,165.56	-	1,165.56	
(ii) Financial assets:-							
a. Other investments	66.00	-	66.00	950.00	-	950.00	
b. Trade receivables	235.21	-	235.21	120.82	-	120.82	
c. Cash and cash equivalents	4,933.53	-	4,933.53	4,627.98	-	4,627.98	
d. Bank balance other than cash and cash equivalents	-	-	-	-	-	-	
e. Loans	586.67	-	586.67	607.54	-	607.54	
f. Other financial assets	-	-	-	-	-	-	
(iii) Other current assets	233.64	(1.58)	232.06	240.28	1.30	241.58	
<b>Total current assets</b>	<b>7,182.02</b>	<b>(1.58)</b>	<b>7,180.44</b>	<b>7,712.18</b>	<b>1.30</b>	<b>7,713.48</b>	
<b>Total assets</b>	<b>16,518.99</b>	<b>0.82</b>	<b>16,519.81</b>	<b>16,177.67</b>	<b>(0.34)</b>	<b>16,177.33</b>	

## Notes to the financial statements

Particulars		Previous GAAP (as reported)	Adjustment for prior period errors	Revised Previous GAAP Balances	Previous GAAP (as reported)	Adjustment for prior period errors	Revised Previous GAAP Balances
<b>A.</b>	<b>Equity</b>						
(i)	Share capital	1,288.62	-	1,288.62	1,288.62	-	1,288.62
(ii)	Reserve and surplus	11,619.06	1.90	11,620.96	11,508.68	(54.15)	11,454.53
	<b>Total equity (shareholders funds under previous GAAP)</b>	<b>12,907.68</b>	<b>1.90</b>	<b>12,909.58</b>	<b>12,797.30</b>	<b>(54.15)</b>	<b>12,743.15</b>
<b>B.</b>	<b>Non-current liabilities</b>						
(i)	Financial liabilities						
a.	Trade payables	-	-	-	-	-	-
b.	Other financial liabilities	-	-	-	-	-	-
(ii)	Provisions	223.72	-	223.72	242.76	-	242.76
(iii)	Deferred tax liabilities	1,110.09	-	1,110.09	1,105.27	(12.85)	1,092.42
(iv)	Other non-current liabilities	68.26	-	68.26	65.30	-	65.30
	<b>Total non-current liabilities</b>	<b>1,402.07</b>	<b>-</b>	<b>1,402.07</b>	<b>1,413.33</b>	<b>(12.85)</b>	<b>1,400.48</b>
<b>C.</b>	<b>Current liabilities</b>						
(i)	Financial liabilities						
a.	Borrowings	-	-	-	-	-	-
b.	Trade payable	581.38	(1.08)	580.30	440.18	1.08	441.26
c.	Other financial liabilities	-	-	-	-	-	-
(ii)	Provisions	277.41	-	277.41	186.21	65.58	251.79
(iii)	Other current liabilities	1,350.45	-	1,350.45	1,340.65	-	1,340.65
	<b>Total current liabilities</b>	<b>2,209.24</b>	<b>(1.08)</b>	<b>2,208.16</b>	<b>1,967.04</b>	<b>66.66</b>	<b>2,033.70</b>
	<b>Total liabilities</b>	<b>3,611.31</b>	<b>(1.08)</b>	<b>3,610.23</b>	<b>3,380.37</b>	<b>53.81</b>	<b>3,434.18</b>
	<b>Total equity and liabilities</b>	<b>16,518.99</b>	<b>0.82</b>	<b>16,519.81</b>	<b>16,177.67</b>	<b>(0.34)</b>	<b>16,177.33</b>

Particulars		For the year ended 31.03.2016		
		Previous GAAP	Effect of Transition to Ind AS	Revised previous GAAP
	Revenue from operations	6,816.00	-	6,816.00
	Other income	536.57	(1.30)	535.27
	<b>Total income (A)</b>	<b>7,352.57</b>	<b>(1.30)</b>	<b>7,351.27</b>
	Raw materials consumed	1,104.40	-	1,104.40
	Power and fuel consumed	1,864.61	-	1,864.61
	Changes in stock of finished goods and work-in-progress	(8.99)	-	(8.99)
	Employee benefits expense	1,361.36	-	1,361.36
	Finance costs	1.21	-	1.21
	Depreciation and amortisation expenses	424.09	(0.53)	423.56
	Excise duty	-	-	-
	Other expenses	1,556.58	(2.18)	1,554.40
	<b>Total expenses (B)</b>	<b>6,303.26</b>	<b>(2.71)</b>	<b>6,300.55</b>
	<b>Profit/(loss) before exceptional items and tax (E=A-B+C+D)</b>	<b>1,049.31</b>	<b>1.41</b>	<b>1,050.72</b>
	Exceptional items (F)	(53.45)	-	(53.45)
	<b>Profit/(loss) before tax (G=E-F)</b>	<b>1,102.76</b>	<b>1.41</b>	<b>1,104.17</b>
	Tax expense			
(1)	Current tax			
a.	Current tax	375.60	-	375.60
b.	Current tax relating to previous years	4.82	-	4.82
(2)	Deferred tax	(8.67)	-	(8.67)
	<b>Total Tax (H)</b>	<b>371.75</b>	<b>-</b>	<b>371.75</b>
	<b>Profit for the year (G-H)</b>	<b>731.01</b>	<b>1.41</b>	<b>732.42</b>



## Notes to the financial statements

Amount in Rs. Crores

### 46.2.1 Effect of Ind AS adoption on the balance sheet as at March 31, 2016 and April 1, 2015

Particulars	As at 31.03.2016			As at 31.03.2015		
	Revised Previous GAAP Balances	Effect of Transition to Ind AS	As per Ind AS balance sheet	Revised Previous GAAP Balances	Effect of Transition to Ind AS	As per Ind AS balance sheet
<b>I. Non-current assets</b>						
(i) Property, plant and equipment	6,329.90	127.17	6,457.07	6,507.99	80.66	6,588.65
(ii) Capital work-in-progress	662.75	(6.45)	656.30	549.31	(3.19)	546.12
(iii) Other intangible assets	138.61	-	138.61	136.21	-	136.21
(iv) Intangible assets under development	-	31.40	31.40	-	3.18	3.18
(v) Financial assets:-						
I. Investment:-						
(a) Investments in associates	-	0.02	0.02	-	0.02	0.02
(b) Investments in joint ventures	-	1.03	1.03	-	0.99	0.99
(c) Other Investments	811.08	132.23	943.31	1.04	(1.01)	0.03
II. Trade receivables	-	-	-	-	-	-
III. Loans	1,347.55	(1,240.22)	107.33	1,221.85	(1,114.50)	107.35
IV. Other financial assets	-	8.04	8.04	-	5.99	5.99
(vi) Other non-current assets	49.48	973.95	1,023.43	47.45	838.04	885.49
<b>Total non-current assets</b>	<b>9,339.37</b>	<b>27.17</b>	<b>9,366.54</b>	<b>8,463.85</b>	<b>(189.82)</b>	<b>8,274.03</b>
<b>II. Current assets</b>						
(i) Inventories	1,126.97	(71.96)	1,055.01	1,165.56	(62.20)	1,103.36
(ii) Financial assets:-						
a. Other investments	66.00	-	66.00	950.00	71.06	1,021.06
b. Trade receivables	235.21	-	235.21	120.82	-	120.82
c. Cash and cash equivalents	4,933.53	(4,279.11)	654.42	4,627.98	(4,624.30)	3.68
d. Bank balance other than cash and cash equivalents	-	4,448.73	4,448.73	-	4,797.30	4,797.30
e. Loans	586.67	(556.47)	30.20	607.54	(568.93)	38.61
f. Other financial assets	-	156.74	156.74	-	156.51	156.51
(iii) Current tax assets	-	102.92	102.92	-	127.77	127.77
(iv) Other current assets	232.06	362.36	594.42	241.58	366.88	608.46
	<b>7,180.44</b>	<b>163.21</b>	<b>7,343.65</b>	<b>7,713.48</b>	<b>264.09</b>	<b>7,977.57</b>
<b>Total current assets</b>	<b>7,180.44</b>	<b>163.21</b>	<b>7,343.65</b>	<b>7,713.48</b>	<b>264.09</b>	<b>7,977.57</b>
<b>Total assets</b>	<b>16,519.81</b>	<b>190.38</b>	<b>16,710.19</b>	<b>16,177.33</b>	<b>74.27</b>	<b>16,251.60</b>

Particulars	Revised Previous GAAP Balances	Effect of Transition to Ind AS	As per Ind AS balance sheet	Revised Previous GAAP Balances	Effect of Transition to Ind AS	As per Ind AS balance sheet
<b>A. Equity</b>						
(i) Share capital	1,288.62	-	1,288.62	1,288.62	-	1,288.62
(ii) Reserve and surplus	11,620.96	285.17	11,906.13	11,454.53	180.46	11,634.99
<b>Total equity (shareholders funds under previous GAAP)</b>	<b>12,909.58</b>	<b>285.17</b>	<b>13,194.75</b>	<b>12,743.15</b>	<b>180.46</b>	<b>12,923.61</b>
<b>B. Non-current liabilities</b>						
(i) Financial liabilities						
a. Trade payables	-	16.30	16.30	-	19.82	19.82
b. Other financial liabilities	-	1.58	1.58	-	3.07	3.07
(ii) Provisions	223.72	77.40	301.12	242.76	82.72	325.48
(iii) Deferred tax liabilities	1,110.09	54.02	1,164.11	1,092.42	22.87	1,115.29
(iv) Other non-current liabilities	68.26	(17.88)	50.38	65.30	(22.88)	42.42
<b>Total non-current liabilities</b>	<b>1,402.07</b>	<b>131.42</b>	<b>1,533.49</b>	<b>1,400.48</b>	<b>105.60</b>	<b>1,506.08</b>
<b>C. Current liabilities</b>						
(i) Financial liabilities						
a. Borrowings	-	-	-	-	-	-
b. Trade payable	580.30	59.26	639.56	441.26	125.31	566.57
c. Other financial liabilities	-	402.35	402.35	-	475.27	475.27
(ii) Provisions	277.41	(190.26)	87.15	251.79	(164.48)	87.31
(iii) Other current liabilities	1,350.45	(497.56)	852.89	1,340.65	(647.89)	692.76
<b>Total current liabilities</b>	<b>2,208.16</b>	<b>(226.21)</b>	<b>1,981.95</b>	<b>2,033.70</b>	<b>(211.79)</b>	<b>1,821.91</b>
<b>Total liabilities</b>	<b>3,610.23</b>	<b>(94.79)</b>	<b>3,515.44</b>	<b>3,434.18</b>	<b>(106.19)</b>	<b>3,327.99</b>
<b>Total equity and liabilities</b>	<b>16,519.81</b>	<b>190.38</b>	<b>16,710.19</b>	<b>16,177.33</b>	<b>74.27</b>	<b>16,251.60</b>





## Notes to the financial statements

Amount in Rs. Crores

## 46.2.2 Reconciliation of total equity as at March 31, 2016 and April 1, 2015

Particulars	As at 31.03.2016	As at 31.03.2015
<b>Total equity (shareholders funds) under Previous GAAP</b>	12,909.58	12,743.15
Dividends and its tax not recognised as a liability until declared under Ind AS	232.64	154.63
Fair value impact on other investments	74.48	71.05
Tax impact on fair value of other investments	(25.78)	(24.59)
Depreciation on cost of dismantling capitalised in property, plant and equipment	(0.17)	(1.05)
Unwinding of interest on provision for dismantling liabilities	(1.39)	(12.74)
Tax impact on dismantling liability capitalised (Deemed cost)	0.48	(1.12)
Provision for legal and constructive obligations	(0.67)	(8.21)
Tax impact on provision for constructive obligation	0.23	2.85
Amount transferred to deferred income relating to Government Grant	-	(0.36)
Premium from forward contracts	0.92	-
Realisation of fair value gain/loss on redemption of long-term investment	(12.26)	-
Unwinding of interest income on employee loans	6.56	-
Effect of reclassification of provision for gratuity reclassified to other comprehensive income	(19.12)	-
Effect of reclassification of provision for PRMB reclassified to other comprehensive income	(2.68)	-
Effect of reclassification of provision for retirement benefit to other comprehensive income	(8.61)	-
Amortisation of prepaid expenses towards employee loans	(6.56)	-
Decrease in depreciation cost due to reclassification of leasehold land to prepaid leasehold premium	5.09	-
Increase in depreciation cost due to major spares used during the previous year	(7.48)	-
Reversal of expenditure charged in profit or loss towards major insurance spares	59.08	-
Writing off of non-moving insurance spares	2.38	-
Amortisation of lease rentals towards leasehold land	(5.09)	-
Other adjustments	(2.18)	-
Tax impact on the above adjustments	(4.73)	-
<b>Total adjustment to equity</b>	<b>285.15</b>	<b>180.46</b>
<b>Total equity under Ind AS</b>	<b>13,194.75</b>	<b>12,923.61</b>

## 46.2.3 Effect of Ind AS Adoption on the statement of profit and loss for the year ended March 31, 2016

Particulars	For the year ended 31.03.2016		
	Revised previous GAAP	Effect of Transition to Ind AS	As per Ind AS
Revenue from operations	6,816.00	453.23	7,269.23
Other income	535.27	69.86	605.13
<b>Total income (A)</b>	<b>7,351.27</b>	<b>523.09</b>	<b>7,874.36</b>
Raw materials consumed	1,104.40	-	1,104.41
Power and fuel consumed	1,864.61	-	1,864.61
Changes in stock of finished goods and work-in-progress	(8.99)	-	(8.99)
Employee benefits expense	1,361.36	36.98	1,398.33
Finance costs	1.21	2.06	3.27
Depreciation and amortisation expenses	423.56	2.56	426.12
Excise duty	-	452.27	452.27
Other expenses	1,554.40	(55.26)	1,499.14
<b>Total expenses (B)</b>	<b>6,300.55</b>	<b>438.61</b>	<b>6,739.16</b>
<b>Profit/(loss) before exceptional items and tax (E=A-B+C+D)</b>	<b>1,050.72</b>	<b>84.48</b>	<b>1,135.20</b>
Exceptional Items (F)	(53.45)	-	(53.45)
<b>Profit/(loss) before tax (G=E-F)</b>	<b>1,104.17</b>	<b>84.48</b>	<b>1,188.65</b>
Tax expense			
(i) Current tax			
a. Current tax	375.60	-	375.60
b. Current tax relating to previous years	(8.67)	-	(8.67)
(2) Deferred tax	4.82	29.79	34.61
<b>Total Tax (H)</b>	<b>371.75</b>	<b>29.79</b>	<b>401.54</b>
<b>Profit for the year (G-H)</b>	<b>732.42</b>	<b>54.69</b>	<b>787.11</b>



## Notes to the financial statements

Amount in Rs. Crores

Particulars		For the year ended 31.03.2016		
		Notes	Previous GAAP	Effect of Transition to Ind AS
<b>Other comprehensive income</b>				
<b>I.</b>	<b>Items that will not be reclassified to profit or loss</b>			
	a) Remeasurements of the defined benefit plan		-	41.06
	b) Income tax relating to items that will not be reclassified to profit or loss		-	14.21
			-	<b>26.85</b>
<b>Total other comprehensive income [A(i-ii) + B(i-ii)]</b>			<b>732.42</b>	<b>81.54</b>
			<b>81.54</b>	<b>813.96</b>

### 46.2.4 Reconciliation of total comprehensive income for the year ended March 31, 2016

Particulars		Details	For the year ended 31.03.2016
<b>Revised profit as per previous GAAP</b>			732.42
Adjustments :			
i.	Adjustment in other income:		
	a) Premium from forward contracts	0.92	
	b) Realisation of fair value gain/loss on redemption of long-term investment	(12.26)	
	c) Unwinding of interest income on employee loans	6.56	
	d) Fair value gain/loss on other investments	74.48	69.70
ii.	Adjustment in employee benefit expenses:		
	a) Effect of reclassification of provision for gratuity reclassified to other comprehensive income	(19.12)	
	b) Effect of reclassification of provision for PRMB reclassified to other comprehensive income	(2.68)	
	c) Effect of reclassification of provision for retirement benefit to other comprehensive income	(8.61)	
	d) Amortisation of prepaid expenses towards employee loans	(6.56)	(36.97)
iii.	Adjustment in finance cost:		
	a) Unwinding of interest cost on dismantling liabilities	(1.39)	
	b) Unwinding of interest cost on constructive obligation	(0.67)	(2.06)
iv.	Adjustment in depreciation and amortisation expenses:		
	a) Decrease in depreciation cost due to reclassification of leasehold land to prepaid leasehold premium	5.09	
	b) Increase in depreciation cost of due to capitalisation of dismantling cost	(0.17)	
	c) Increase in depreciation cost due to major spares used during the previous year	(7.48)	(2.56)
v.	Adjustment in other expenses:		
	a) Reversal of expenditure charged in profit or loss towards major insurance spares	59.08	
	b) Writing off of non-moving insurance spares	2.38	
	c) Amortisation of lease rentals towards leasehold land	(5.09)	56.37
vi.	Impact on tax expenses		
	a) Tax impact on the adjustments	(29.79)	(29.79)
<b>Total effect of transition to Ind AS</b>			<b>54.69</b>
<b>Profit for the year as per Ind AS</b>			<b>787.11</b>
<b>Other comprehensive income for the year (net of tax)</b>			<b>26.85</b>
<b>Total comprehensive income under Ind AS</b>			<b>813.96</b>



## Notes to the financial statements

Amount in Rs. Crores

### 46.2.5 Effect of Ind AS adoption on the statement of cash flows for the year ended March 31, 2016

Particulars	For the year ended 31.03.2016		
	Revised Previous GAAP	Effect of Transition to Ind AS	As per Ind AS balance sheet
Net cash flows from operating activities	845.24	35.57	880.81
Net cash flows from investing activities	5.66	308.30	313.96
Net cash flows from financing activities	(543.95)	-	(544.03)
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>306.95</b>	<b>343.87</b>	<b>650.74</b>
<b>Cash and cash equivalents at the beginning of the year</b>	<b>4,627.98</b>	<b>(4,624.30)</b>	<b>3.68</b>
<b>Cash and cash equivalents at the end of the year</b>	<b>4,934.93</b>	<b>(4,280.43)</b>	<b>654.42</b>

### 46.2.6 Analysis of cash and cash equivalents as at March 31, 2016 and April 1, 2015 for the purpose statement of cash flow under Ind AS

Particulars	As at	As at
	31.03.2016	31.03.2015
Cash and cash equivalents for the purpose of statement of cash flows as per Previous GAAP	4,934.93	4,627.98
Reclassification to bank balances other than cash and cash equivalents	(4,280.51)	(4,624.30)
Cash and cash equivalents for the purpose of statement of cash flows as per Ind AS	<b>654.42</b>	<b>3.68</b>

- (a) Reclassification entry is passed in the figures with IGAAP balances in order to make better presentation in terms of Ind AS Figures. However, no adjustment entry has been passed which may effect the total equity or the profit for the year of the Company.



## INDEPENDENT AUDITORS' REPORT

TO THE MEMBERS OF NATIONAL ALUMINIUM COMPANY LIMITED

### Report on the Consolidated Ind AS Financial Statements

We have audited the accompanying consolidated Ind AS financial statements of **National Aluminium Company Limited** (hereinafter referred to as "the Company") and its associate and jointly controlled entities, which comprises the Consolidated Balance Sheet as at 31<sup>st</sup> March, 2017, Consolidated Statement of Profit and Loss (including Other Comprehensive Income), the Consolidated statement of Cash Flows and the Consolidated Statement of Changes in Equity for the year then ended, and a summary of the significant accounting policies and other explanatory information (hereinafter referred to as "the consolidated Ind AS financial statements").

### Management's Responsibility for the Consolidated Ind AS Financial Statements

The Company's board of directors is responsible for the preparation of these consolidated Ind AS financial statements in terms of the requirements of the Companies Act, 2013 (hereinafter referred to as "the Act") that give a true and fair view of the consolidated financial position, consolidated financial performance including other comprehensive income, consolidated cash flows and consolidated changes in equity of the Company including its associate and jointly controlled entities in accordance with the accounting principles generally accepted in India, including the Indian Accounting Standards (Ind AS) specified under Section 133 of the Act, read with relevant rules made thereunder.

The respective board of the Company and its associate and jointly controlled entities are responsible for maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding their assets and for preventing and detecting frauds and other irregularities; the selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and the design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the consolidated Ind AS financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error, which have been used for the purpose of preparation of the consolidated Ind AS financial statements by the directors of the Company, as aforesaid.

### Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated Ind AS financial statements based on our audit. While conducting the audit, we have taken into account the provisions of the Act, the accounting and auditing standards and matters, which are required to be included in the audit report under the provisions of the Act and the Rules made thereunder.

We conducted our audit in accordance with the Standards on Auditing specified under section 143(10) of the Act. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated Ind AS financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and the disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal financial control relevant to the company's preparation of the financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by company's board of directors, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence obtained by us is sufficient and appropriate to provide a basis for our audit opinion on the consolidated Ind AS financial statements.

### Opinion

In our opinion and to the best of our information and according to the explanations given to us, the aforesaid consolidated Ind AS financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the consolidated financial position of the Company including its associate and jointly controlled entities, as at 31<sup>st</sup> March 2017 and its consolidated financial performance including other comprehensive income, its consolidated cash flows and the consolidated changes in equity for the year then ended.

### Other Matters

The consolidated Ind AS financial statements include the Company's share of net loss of Rs.0.81 crore for the year ended 31<sup>st</sup> March, 2017, in respect of the associate and jointly controlled entities, whose financial statements have not been audited by us. These financial statements have been audited by other auditors whose reports have been furnished to us and our opinion on the consolidated Ind AS financial statements, in so far as it relates to the amounts and disclosures included in respect of these associate and jointly controlled



entities, and our report in terms of sub-sections (3) and (11) of Section 143 of the Act, in so far as it relates to these associate and jointly controlled entities, is based solely on the reports of the other auditors.

The comparative financial information for the year ended 31st March 2016 and the transition date opening balance sheet as at 1st April 2015 included in these consolidated Ind AS financial statements, are based on the previously issued statutory financial statements of the Company including its associate and jointly controlled entities for the year ended 31st March 2016 and 31st March 2015 respectively, prepared in accordance with the Companies (Accounting Standards) Rules, 2006 and auditors expressing unmodified opinion thereon in their respective audit reports. Those financial statements have been adjusted for the differences in the accounting principles adopted by the Company on transition to the Ind AS, which have been audited by us.

Our opinion on the consolidated Ind AS financial statements, and our report on Other Legal and Regulatory Requirements below, is not modified in respect of the above matters with respect to our reliance on the work done and reports of the other auditors.

#### Report on Other Legal and Regulatory Requirements

1. In compliance to directions of the Comptroller and Auditor General of India u/s.143(5) of the Act, we give in Annexure "A" to this report a statement on the matters specified therein.
2. As required by section 143(3) of the Act we report that:
  - a. We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit of the aforesaid consolidated Ind AS financial statements.
  - b. In our opinion, proper books of account as required by law relating to preparation of the aforesaid consolidated Ind AS financial statements have been kept so far as it appears from our examination of those books and the reports of the other auditors.
  - c. The Consolidated Balance Sheet, the Consolidated Statement of Profit and Loss, the Consolidated Cash Flow Statement and Consolidated Statement of Changes in Equity dealt with by this Report are in agreement with the relevant books of account maintained for the purpose of preparation of the consolidated Ind AS financial statements.
  - d. In our opinion, the aforesaid consolidated Ind AS financial statements comply with the Accounting Standards specified under Section 133 of the Act, read with relevant rules made thereunder.
  - e. Section 164(2) of the Act regarding disqualification of directors is not applicable to the Company by virtue of Notification No. G.S.R. 463(E) dated 05.06.2015 and on the basis of the reports of the statutory auditors of its associate and jointly controlled entities incorporated in India, none of the director of these associate and jointly controlled entities is disqualified as on 31st March, 2017 from being appointed as a director in terms of Section 164 (2) of the Act.
  - f. With respect to the adequacy of the internal financial controls over financial reporting of the Company including its associate and jointly controlled entities and the operating effectiveness of such controls, refer to our separate report in Annexure "B".
  - g. With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, in our opinion and to the best of our information and according to the explanations given to us:
    - i. the consolidated Ind AS financial statements disclose the impact of pending litigations on the consolidated financial position of the Company including its associate and jointly controlled entities - Refer Note 26 to the consolidated financial statements;
    - ii. the Company including its associate and jointly controlled entities did not have any material foreseeable losses on long-term contracts including derivative contracts;
    - iii. there has been no delay in transferring amounts, required to be transferred to the Investor Education and Protection Fund by the Company; and
    - iv. the Company has provided requisite disclosures in its consolidated Ind AS financial statements as to holdings as well as dealings in Specified Bank Notes during the period from 8th November, 2016 to 30th December, 2016 - Refer Note 28 to the consolidated financial statements. However, as stated in the said note and as represented to us by the Management, amounts aggregating to Rs.81,000/- and Rs.9,000/- respectively have been received and utilized in respect transactions which are not permitted.

#### For ABP & Associates

Chartered Accountants  
FRN – 315104E

(CA Lalit K. Patangia)  
Partner  
Membership No.053971

Place : Bhubaneswar  
Dated : 27th May, 2017

#### For Guha Nandi & Co.

Chartered Accountants  
FRN – 302039E

(CA Dr. B. S. Kundu)  
Partner  
Membership No.051221

ANNEXURE TO THE INDEPENDENT AUDITOR'S REPORT ON THE  
CONSOLIDATED IND AS FINANCIAL STATEMENTS FOR THE YEAR ENDED  
31<sup>ST</sup> MARCH 2017 OF NATIONAL ALUMINIUM COMPANY LIMITED

(Referred to in paragraph 1 under the heading of  
"Report on Other Legal and Regulatory Requirements" of our Report of even date)  
Report on the directions under section 143(5) of the Companies Act, 2013 by the  
Comptroller & Auditor General of India

- I. According to the information and explanations given to us by the management and on the basis of our examination of books and records of the Company and reports of the other auditors and information furnished by the management of associate and jointly controlled entities as the case may be, we report that:

- (i) The Company including its associate and jointly controlled entities have clear title/lease deeds for freehold and leasehold land respectively wherever the title/lease deeds are executed. There are 66.92 acres of freehold and 1744.63 acres of lease hold land out of 8022.63 acres of freehold and 9162.65 acres of lease hold land in respect of which the title/lease deeds are not yet executed. However, the Company has been permitted by the concerned authorities to carry on its operation on the said land.
- (ii) There are 11 cases of write-off of advances, debtors and claims amounting to Rs.18.40 lacs as detailed below. The reason of write-off, as explained to us, is that these are old balances lying unadjusted / unrealized for a long time, have become time-barred and chances of recovery / adjustments are remote.

Types of write off / waiver	No of cases	Amount in Rs. Lacs
Advances	4	2.80
Debtors	3	0.10
Claims	4	15.50
Total	11	18.40

- (iii) (a) Proper records are maintained by the Company including its associate and jointly controlled entities for inventories lying with third parties
- (b) The Company including its associate and jointly controlled entities have not received any asset as gift/grant(s) from Government or other authorities during the year.
2. Our reports under Section 143(5) of the Act on the consolidated Ind AS financial statements of National Aluminium Co. Ltd., in so far as it relates to the associate and jointly controlled entities of the Company, is based on the corresponding reports of the auditors of such associate and jointly controlled entities (hereinafter mentioned as the "other auditors") and information furnished by the management of such associate and jointly controlled entities. The Company has one associate and two jointly controlled entities. In the case of NPCIL-NALCO Power Co. Ltd., the associate company which is also a Government company, it has been reported by its auditors that section 143(5) is not applicable to it. Further, as informed to us, GACL-NALCO Alkalies & Chemicals Pvt. Ltd., a jointly controlled entity of the Company, is not a Government company and hence section 143(5) is not applicable to it.

**For ABP & Associates**  
Chartered Accountants  
FRN – 315104E

(CA Lalit K. Patangia)  
Partner  
Membership No.053971

Place : Bhubaneswar  
Dated : 27th May, 2017

**For Guha Nandi & Co.**  
Chartered Accountants  
FRN – 302039E

(CA Dr. B. S. Kundu)  
Partner  
Membership No.051221



## ANNEXURE "B"

## ANNEXURE TO THE INDEPENDENT AUDITOR'S REPORT OF EVEN DATE ON THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31<sup>ST</sup> MARCH 2017 OF NATIONAL ALUMINIUM COMPANY LIMITED

### Report on the Internal Financial Controls under Clause (i) of Sub-section 3 of Section 143 of the Companies Act, 2013 ("the Act")

In conjunction with our audit of the consolidated Ind AS financial statements of the Company as of and for the year ended March 31, 2017, we have audited the internal financial controls over financial reporting of **NATIONAL ALUMINIUM COMPANY LIMITED** (hereinafter referred to as "the Company") and its associate and jointly controlled entities, which are companies incorporated in India, as of that date.

#### Management's Responsibility for Internal Financial Controls

The respective Board of Directors of the Company and its associate and jointly controlled entities which are companies incorporated in India, are responsible for establishing and maintaining internal financial controls based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India (ICAI). These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to the respective company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Companies Act, 2013.

#### Auditors' Responsibility

Our responsibility is to express an opinion on the Company's internal financial controls over financial reporting based on our audit. We conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting (the "Guidance Note") and the Standards on Auditing, both issued by ICAI and deemed to be prescribed under section 143(10) of the Companies Act, 2013, to the extent applicable to an audit of internal financial controls. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls over financial reporting was established and maintained and if such controls operated effectively in all material respects.

Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls system over financial reporting and their operating effectiveness. Our audit of internal financial controls over financial reporting included obtaining an understanding of internal financial controls over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of financial statements, whether due to fraud or error.

We believe that the audit evidence we have obtained and the audit evidence obtained by the other auditors in terms of their reports referred to in the other matters paragraph below, is sufficient and appropriate to provide a basis for our audit opinion on the Company's internal financial controls system over financial reporting.

#### Meaning of Internal Financial Controls Over Financial Reporting

A company's internal financial control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal financial control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.



#### Inherent Limitations of Internal Financial Controls Over Financial Reporting

Because of the inherent limitations of internal financial controls over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls over financial reporting to future periods are subject to the risk that the internal financial control over financial reporting may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

#### Opinion

In our opinion, the Company and its associate and jointly controlled entities, which are companies incorporated in India, have, in all material respects, an adequate internal financial controls system over financial reporting and such internal financial controls over financial reporting were operating effectively as at March 31, 2017, based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India.

#### Other Matters

Our aforesaid reports under Section 143(3)(i) of the Act on the adequacy and operating effectiveness of the internal financial controls over financial reporting in so far as it relates to the associate and jointly controlled entities, which are companies incorporated in India, is based on the corresponding reports of the auditors of such companies.

#### For ABP & Associates

Chartered Accountants  
FRN – 315104E

(CA Lalit K. Patangia)  
Partner  
Membership No.053971

Place : Bhubaneswar  
Dated : 27<sup>th</sup> May, 2017

#### For Guha Nandi & Co.

Chartered Accountants  
FRN – 302039E

(CA Dr. B. S. Kundu)  
Partner  
Membership No.051221





## COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 143(6)(b) READ WITH SECTION 129(4) OF THE COMPANIES ACT, 2013 ON THE CONSOLIDATED FINANCIAL STATEMENTS OF NATIONAL ALUMINIUM COMPANY LIMITED, BHUBANESWAR FOR THE YEAR ENDED 31 MARCH 2017

The preparation of consolidated financial statements of National Aluminium Company Limited for the year ended 31 March 2017 in accordance with the financial reporting framework prescribed under the Companies Act, 2013 (Act) is the responsibility of the management of the company. The statutory auditors appointed by the Comptroller and Auditor General of India under section 139(5) read with section 129(4) of the Act are responsible for expressing opinion on the financial statements under section 143 read with section 129(4) of the Act based on independent audit in accordance with the standards on auditing prescribed under section 143(10) of the Act. This is stated to have been done by them vide their Audit Report dated 27 May 2017.

I, on the behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit under section 143(6)(a) read with section 129(4) of the Act of the consolidated financial statements of National Aluminium Company Limited for the year ended 31 March 2017. We conducted a supplementary audit of the financial statements of National Aluminium Company Limited, but did not conduct supplementary audit of the financial statements of its associate companies NPCIL-NALCO Power Company Limited and Angul Aluminium Park Private Limited for the year ended on that date. Further, section 139(5) and 143(6)(a) of the Act are not applicable to its associate company GACL-NALCO Alkalies Chemicals Private Limited being private entity for appointment of their Statutory Auditor nor for conduct of supplementary audit. Accordingly, C&AG has neither appointed the Statutory Auditors nor conducted the supplementary audit of this company. This supplementary audit has been carried out independently without access to the working papers of the statutory auditors and is limited primarily to inquiries of the statutory auditors and company personnel and a selective examination of some of the accounting records.

On the basis of my audit nothing significant has come to my knowledge which would give rise to any comment upon or supplement to statutory auditors' report.

**For and on the behalf of the  
Comptroller & Auditor General of India**

**(Praveer Kumar)  
Principal Director of Commercial Audit  
& Ex-officio Member Audit Board-I  
Kolkata**

**Place : Kolkata  
Date : 22 June 2017**

## Consolidated Balance Sheet as at March 31, 2017

Amount in Rs. Crores

Particulars	Notes	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Assets</b>				
<b>(1) Non-current assets</b>				
(a) Property, plant and equipment	6	7,018.63	6,457.07	6,588.65
(b) Capital work-in-progress	7	514.65	656.30	546.12
(c) Intangible assets	8	125.80	138.61	136.21
(d) Intangible assets under development	9	51.35	31.40	3.18
<b>(e) Financial assets</b>				
(i) Investments	10	38.91	944.53	1.16
(ii) Trade receivables	11	-	-	-
(iii) Loans	12	80.60	107.33	107.35
(iv) Other financial assets	13	10.77	8.04	5.99
(f) Other non-current assets	15	1,004.51	1,023.43	885.49
<b>Total non-current assets</b>		<b>8,845.22</b>	<b>9,346.71</b>	<b>8,274.15</b>
<b>(2) Current assets</b>				
(a) Inventories	16	1,155.93	1,055.01	1,103.36
<b>(b) Financial assets</b>				
(i) Investments	10	1,221.13	66.00	1,021.06
(ii) Trade receivables	11	184.25	235.21	120.82
(iii) Cash and cash equivalents	17	24.83	654.42	3.68
(iv) Bank balances other than (iii) above	17	2,262.40	4,448.73	4,797.30
(v) Loans	12	36.70	30.20	38.61
(vi) Other financial assets	13	156.49	156.74	156.51
(c) Current tax assets (Net)	14	34.12	102.92	127.77
(d) Other current assets	15	579.94	594.42	608.46
<b>Total current assets</b>		<b>5,655.79</b>	<b>7,343.65</b>	<b>7,977.57</b>
<b>Total assets</b>		<b>14,501.01</b>	<b>16,710.36</b>	<b>16,251.72</b>
<b>Equity and liabilities</b>				
<b>(1) Equity</b>				
(a) Equity share capital	18	966.46	1,288.62	1,288.62
(b) Other equity	19	9,238.69	11,906.30	11,635.11
<b>Total equity</b>		<b>10,205.15</b>	<b>13,194.92</b>	<b>12,923.73</b>
<b>(2) Liabilities</b>				
<b>(2) Non-current liabilities</b>				
<b>(a) Financial liabilities</b>				
(i) Trade payables	21	19.61	16.30	19.82
(ii) Other financial liabilities	22	2.36	1.58	3.07
(b) Provisions	23	328.11	301.12	325.48
(c) Deferred tax liabilities (Net)	14	1,245.58	1,164.11	1,115.29
(d) Other non-current liabilities	25	48.27	50.38	42.42
<b>Total non-current liabilities</b>		<b>1,643.93</b>	<b>1,533.49</b>	<b>1,506.68</b>
<b>(3) Current liabilities</b>				
<b>(a) Financial liabilities</b>				
(i) Borrowings	20	51.09	-	-
(ii) Trade payables	21	844.46	639.56	566.57
(iii) Other financial liabilities	22	469.10	402.35	475.27
(b) Provisions	23	117.07	87.15	87.31
(c) Other current liabilities	25	1,170.21	852.89	692.76
<b>Total current liabilities</b>		<b>2,651.93</b>	<b>1,981.95</b>	<b>1,821.91</b>
<b>Total liabilities</b>		<b>4,295.86</b>	<b>3,515.44</b>	<b>3,327.99</b>
<b>Total equity and liabilities</b>		<b>14,501.01</b>	<b>16,710.36</b>	<b>16,251.72</b>

See accompanying notes to the financial statements

For and on behalf of Board of Directors

(CS. K N Ravindra)  
Executive Director  
(Company Secretary)

(K C Samal)  
Director (Finance)  
DIN: 03618709

(Dr. T K Chand)  
Chairman-Cum-Managing Director  
DIN: 01710900

In terms of our attached report of even date.

For ABP & Associates  
Chartered Accountants  
FRN - 315104E

(CA Lalit K. Patangia)  
Partner (M No.: 053971)

For Guha Nandi & Co.  
Chartered Accountants  
FRN - 302039E

(CA Dr. B S Kundu)  
Partner (M No.: 051221)

Place : Bhubaneswar  
Dated : May 27, 2017

## Consolidated Statement of Profit and Loss for the period ended March 31, 2017 Amount in Rs. Crores

	Notes	Year ended 31.03.2017	Year ended 31.03.2016
I Revenue from operations	29	8,050.02	7,269.23
II Other Income	30	408.27	605.13
III Total Income (I + II)		8,458.29	7,874.36
<b>IV EXPENSES</b>			
(a) Cost of raw materials consumed	31	1,181.79	1,104.41
(b) Cost of power and fuel consumed	31	2,212.53	1,864.61
(c) Changes in inventories of finished goods and work-in-progress	32	(96.59)	(8.99)
(d) Employee benefits expenses	33	1,537.44	1,398.33
(e) Finance costs	34	2.69	3.27
(f) Depreciation and amortisation expenses	35	480.36	426.12
(g) Excise duty	36	506.98	452.27
(h) Other expenses	37	1,628.22	1,499.14
Total expenses (IV)		7,453.42	6,739.16
V Profit/(loss) before exceptional items and tax (III - IV)		1,004.87	1,135.20
VI Exceptional Items	38	40.15	(53.45)
VII Share of Profit/(loss) of Joint Ventures		(0.81)	0.05
VIII Profit/(loss) before tax (V -VI+ VII)		963.91	1,188.70
IX Tax Expense			
(1) Current tax	39	219.52	366.93
(2) Deferred tax	39	76.67	34.61
X Profit/(loss) for the period (VIII - IX)		667.72	787.16
XI Other comprehensive income			
(i) Items that will not be reclassified to profit or loss			
- Remeasurement gains / (losses) on defined benefit plans		13.88	41.06
(ii) Income tax relating to items that will not be reclassified to profit or loss	39	4.80	14.21
Other comprehensive income for the period/(net of tax)		9.08	26.85
XII Total comprehensive income for the period (X+XI) (comprising profit/(loss) and other comprehensive income for the period)		676.80	814.01
XIII Earnings per equity share:			
(1) Basic (in Rs.)	41	2.97	3.05
(2) Diluted (in Rs.)	41	2.97	3.05

See accompanying notes to the financial statements

For and on behalf of Board of Directors

(CS. K N Ravindra)  
Executive Director  
(Company Secretary)

(K C Samal)  
Director (Finance)  
DIN: 03618709

(Dr. T K Chand)  
Chairman-Cum-Managing Director  
DIN: 01710900

In terms of our attached report of even date.

For ABP & Associates  
Chartered Accountants  
FRN - 315104E

(CA Lalit K. Patangia)  
Partner (M No.: 053971)

For Guha Nandi & Co.  
Chartered Accountants  
FRN - 302039E

(CA Dr. B S Kundu)  
Partner (M No.:051221)

Place : Bhubaneswar  
Dated : May 27, 2017

## Consolidated statement of changes in equity for the period ended March 31, 2017 Amount in Rs. Crores

<b>A. Equity share capital</b>		
<b>Balance as at 01.04.2015</b>		<b>1,288.62</b>
Changes in equity share capital during the year		-
<b>Balance as at 31.03.2016</b>		<b>1,288.62</b>
Changes in equity share capital during the year		
Buy-back of equity shares		(322.16)
<b>Balance as at 31.03.2017</b>		<b>966.46</b>

<b>B. Other equity</b>				
Other equity	Reserves and surplus			Total
	Capital redemption reserve	General reserve	Retained earnings	
<b>Balance as at 01.04.2015</b>	-	11,461.22	173.89	11,635.11
Profit for the year	-	-	787.16	787.16
Other comprehensive income (net of taxes)	-	-	26.85	26.85
<b>Total comprehensive income for the year</b>	-	-	814.01	814.01
Final dividend for previous year	-	-	(128.86)	(128.86)
Tax on final dividend for previous year	-	-	(26.22)	(26.22)
Interim dividend for the year	-	-	(322.16)	(322.16)
Tax on interim dividend for the year	-	-	(65.58)	(65.58)
Transfer to general reserve	-	-	-	-
Transfer of Ind AS transition reserve to profit and loss	-	-	-	-
<b>Balance as at 31.03.2016</b>	-	11,461.22	445.08	11,906.30
Profit for the year	-	-	667.72	667.72
Other comprehensive income (net of taxes)	-	-	9.08	9.08
<b>Total comprehensive income for the year</b>	-	-	676.80	676.80
Premium on Buy-back of equity shares	-	(2,512.81)	-	(2,512.81)
Expenses on Buy-back of equity shares	-	(5.72)	-	(5.72)
Transfer of general reserve to Capital redemption reserve	322.16	(322.16)	-	-
Final dividend for previous year	-	-	(144.97)	(144.97)
Tax on final dividend for previous year	-	-	(29.51)	(29.51)
Interim dividend for the year	-	-	(541.22)	(541.22)
Tax on interim dividend for the year	-	-	(110.18)	(110.18)
<b>Balance as at 31.03.2017</b>	<b>322.16</b>	<b>8,620.53</b>	<b>296.00</b>	<b>9,238.69</b>

See accompanying notes to the financial statements

(CS. K N Ravindra)  
Executive Director  
(Company Secretary)

For and on behalf of Board of Directors

(K C Samal)  
Director (Finance)  
DIN: 03618709

(Dr. T K Chand)  
Chairman-Cum-Managing Director  
DIN: 01710900

In terms of our attached report of even date.

For ABP & Associates  
Chartered Accountants  
FRN - 315104E

(CA Lalit K. Patangia)  
Partner (M No.: 053971)

For Guha Nandi & Co.  
Chartered Accountants  
FRN - 302039E

(CA Dr. B S Kundu)  
Partner (M No.: 051221)

Place : Bhubaneswar  
Dated : May 27, 2017



# Consolidated Cash Flow Statement for the year ended March 31, 2017 Amount in Rs. Crores

	Year ended 31.03.2017	Year ended 31.03.2016
<b>A. Cash flows from operating activities</b>		
<b>Profit for the period</b>	<b>667.72</b>	<b>787.16</b>
Adjustments for:		
Income tax expense recognised in profit or loss	296.19	401.54
Share of profit of Associates	-	-
Share of profit of Joint Ventures	0.81	(0.05)
Finance costs recognised in profit or loss	2.69	3.27
Interest income recognised in profit or loss	(292.64)	(466.89)
Dividend income recognised in profit or loss	(8.78)	(5.19)
Net (gain) / loss on sale of non-current investments	-	(0.70)
Net (gain) / loss on disposal of property, plant and equipment	(0.10)	1.11
Net (gain) / loss recorded in profit or loss on financial liabilities as at fair value through profit or loss	-	-
Net (gain) / loss arising on financial assets mandatorily measured at fair value through profit or loss	(77.81)	(74.49)
Impairment loss recognised on other assets	56.93	63.01
Inventories of stores, spares written off	27.96	9.61
Depreciation and amortisation of non-current assets	480.36	426.12
Net foreign exchange (gain)/loss	7.90	(5.98)
	<b>1,161.23</b>	<b>1,138.52</b>
Movements in working capital:		
(Increase) / decrease in inventories	(129.56)	37.87
(Increase) / decrease in trade receivables	50.96	(114.39)
(Increase) / decrease in loans and other financial asset	17.75	6.15
(Increase) / decrease in other assets	(49.52)	(62.30)
Increase / (decrease) in trade payables	200.31	75.45
Increase / (decrease) in other financial liabilities	21.25	(23.29)
Increase / (decrease) in other liabilities	315.21	168.09
Increase / (decrease) in provisions	66.74	14.49
<b>Cash (used in) / generated from operations</b>	<b>1,654.37</b>	<b>1,240.59</b>
Income taxes paid	(218.43)	(359.78)
<b>Net cash (used in) / generated by operating activities</b>	<b>1,435.94</b>	<b>880.81</b>
<b>B. Cash flows from investing activities</b>		
Payments to acquire financial assets	(184.00)	(66.00)
Proceeds from sale of financial assets	49.96	152.97
Payments to acquire equity in joint ventures and associates	(38.47)	(0.04)
Proceeds from redemption of term deposits with banks	2,183.02	348.67
Dividends received from other investments	8.78	5.19
Interest received from banks and others	292.64	466.89
Payments for property, plant and equipment (including capital advances)	(757.98)	(555.30)
Proceeds from disposal of property, plant and equipment	16.53	4.85
Payments for other intangible assets	(20.14)	(43.27)
<b>Net cash (used in) / generated by investing activities</b>	<b>1,550.34</b>	<b>313.96</b>
<b>C. Cash flows from financing activities</b>		
Payments for buy-back of equity shares	(2,834.97)	-
Payments for share buy-back costs	(5.72)	-
Proceeds from short term borrowings	51.09	-
Finance cost paid	(0.39)	(1.21)
Dividends paid on equity shares	(686.19)	(451.02)
Tax on dividends paid on equity shares	(139.69)	(91.80)
<b>Net cash (used in) / generated by financing activities</b>	<b>(3,615.87)</b>	<b>(544.03)</b>
<b>Net increase or (decrease) in cash or cash equivalents</b>	<b>(629.59)</b>	<b>650.74</b>
<b>Cash and cash equivalents at the beginning of the year</b>	<b>654.42</b>	<b>3.68</b>
<b>Cash and cash equivalents at the end of the year</b>	<b>24.83</b>	<b>654.42</b>

See accompanying notes to the financial statements

Note: Figures in the brackets are cash outflow/income as the case may be.

For and on behalf of Board of Directors

(CS. K N Ravindra)  
Executive Director  
(Company Secretary)

(K C Samal)  
Director (Finance)  
DIN: 03618709

(Dr. T K Chand)  
Chairman-Cum-Managing Director  
DIN: 01710900

In terms of our attached report of even date.

For ABP & Associates  
Chartered Accountants  
FRN - 315104E

For Guha Nandi & Co.  
Chartered Accountants  
FRN - 302039E

Place : Bhubaneswar  
Dated : May 27, 2017

(CA Lalit K. Patangia)  
Partner (M No.: 053971)

(CA Dr. B S Kundu)  
Partner (M No.: 051221)



## NOTES TO ACCOUNTS

### Note .1 General Information

National Aluminium Company Limited (hereinafter to be referred as “The Parent Company” and together with its joint venture and associates to be referred as “the Group”) is a Navranta Company, a Central Public Sector Enterprise under Ministry of Mines, Government of India, incorporated under the relevant provisions of the Companies Act and is listed in the stock exchanges in India. The Parent Company is engaged in the business of manufacturing and selling of Alumina and Aluminium. The Parent Company is operating a 22.75 lakh TPA Alumina Refinery plant located at Damanjodi in Koraput district of Odisha and 4.60 lakh TPA Aluminium Smelter located at Angul, Odisha. The Parent Company has a captive bauxite mines adjacent to refinery plant to feed the bauxite requirement of Alumina Refinery and also a 1200 MW captive thermal power plant adjacent to Smelter plant to meet the power consumption of Smelter. Besides the Parent Company is also operating four wind power plants with total capacity of 198.40 MW located in the state of Andhra Pradesh (Gandikota), Rajasthan (Jaisalmer & Devikot) and Maharashtra (Sangli) to harness the renewable energy and to comply with its Renewable Purchase Obligation.

National Aluminium Company Limited, the Parent Company, its associate M/s NPCIL-NALCO Power Company Ltd, Joint venture Companies M/s Angul Aluminium Park Pvt Ltd and M/s Gujarat Alkalies & Chemicals Pvt Ltd is the Group. The consolidated financial statement of the Group includes consolidated Balance sheet as on 31.3.2017, consolidated statement of profit & loss for the period ended 31.3.2017, consolidated cash flow statement and consolidated statement change in equity for the period ended 31.3.2017.

### Note.2 Statement of Compliance:

In accordance with the notification issued by the Ministry of Corporate Affairs, the Group has adopted Indian Accounting Standards (referred to as “Ind AS”) notified under the Companies (Indian Accounting Standards) Rules, 2015 with effect from 1 April, 2016, with a transition date of 1st April 2015. All the notified accounting standards which are applicable to the Group have been taken into consideration and complied without any exception while preparing the first Ind AS compliant financial statements of the Group.

### Note.3 Significant Accounting Policies:

#### 3.1 Basis of preparation

The financial statements of the Group have been prepared in accordance with Ind AS and relevant provisions of the Companies Act, 2013.

The financial statements have been prepared on historical cost basis, except for certain financial instruments that are measured at fair values at the end of each reporting period, as explained in the accounting policies below.

All assets and liabilities have been classified as current or non-current as per Group’s operating cycle and other criteria setout in Schedule-III of the Companies Act, 2013. Based on the nature of business, the Group has ascertained its operating cycle as 12 months for the purpose of current or non-current classification of assets and liabilities.

#### 3.2 Use of estimates :

These financial statements have been prepared based on estimates and assumptions in conformity with the recognition and measurement principles of Ind AS.

Estimates and underlying assumptions are reviewed on an ongoing basis and revisions if any in such estimates are accounted appropriately in the year of revision.

Key sources of estimation uncertainty at the reporting date, which may cause a material adjustment to the carrying amounts of assets and liabilities for future years are stated in Note No.4.

#### 3.3 Investments in associates and joint ventures

An associate is an entity over which the Parent Company has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The results, assets and liabilities of associates or joint ventures are incorporated in these consolidated financial statements using the equity method of accounting, except when the investment, or a portion thereof, is classified as held for sale, in which case it is accounted for in accordance with Ind AS 105. Under the equity method, an investment in an associate or a joint venture is initially



recognised in the consolidated balance sheet at cost and adjusted thereafter to recognise the Group's share of the profit or loss and other comprehensive income of the associate or joint venture.

Distributions received from an associate or a joint venture reduces the carrying amount of the investment. When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or joint venture), the Group discontinues recognizing its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

An investment in an associate or a joint venture is accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised directly in equity as capital reserve in the period in which the investment is acquired.

After application of the equity method of accounting, the Group determines whether there is any objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the net investment in an associate or a joint venture and that event (or events) has an impact on the estimated future cash flows from the net investment that can be reliably estimated. If there exists such an objective evidence of impairment, then it is necessary to recognise impairment loss with respect to the Group's investment in an associate or a joint venture.

When necessary, the entire carrying amount of the investment is tested for impairment in accordance with Ind AS 36 Impairment of Assets as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount, any impairment loss recognised forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with Ind AS 36 to the extent that the recoverable amount of the investment subsequently increases.

The Group discontinues the use of the equity method from the date when the investment ceases to be an associate or a joint venture, or when the investment is classified as held for sale. When the Group retains an interest in the former associate or joint venture and the retained interest is a financial asset, the Group measures the retained interest at fair value at that date and the fair value is regarded as its fair value on initial recognition in accordance with Ind AS 109. The difference between the carrying amount of the associate or joint venture at the date the equity method was discontinued, and the fair value of any retained interest and any proceeds from disposing of a part interest in the associate or joint venture is included in the determination of the gain or loss on disposal of the associate or joint venture. In addition, the Group accounts for all amounts previously recognised in other comprehensive income in relation to that associate or joint venture on the same basis as would be required if that associate or joint venture had directly disposed of the related assets or liabilities.

The Group continues to use the equity method when an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate. There is no re-measurement to fair value upon such changes in ownership interests.

When the Group reduces its ownership interest in an associate or a joint venture but the Group continues to use the equity method, the Group reclassifies to profit or loss the proportion of the gain or loss that had previously been recognised in other comprehensive income relating to that reduction in ownership interest if that gain or loss would be reclassified to profit or loss on the disposal of the related assets or liabilities.

### 3.4 Property, Plant and Equipment

Property, plant and equipment other than freehold lands, held for use in the production and/or supply of goods or services, or for administrative purposes, are stated at cost, less accumulated depreciation and accumulated impairment losses. Freehold lands unless impaired, are stated at cost.

### 3.5 Initial Measurement

The initial cost comprises purchase price, non-refundable purchase taxes, other directly expenditure attributable to acquisition, borrowing cost, if any, incurred for bringing the assets to its location and condition necessary for it to be capable of operating in the manner intended by Management, and the initial estimates of the present value of any asset restoration obligation or obligatory decommissioning and dismantling costs.

Expenditure incurred on development of freehold land is capitalized as part of the cost of the land.

In case of self-constructed assets, cost includes the costs of all materials used in construction, direct labour, allocation of overheads and directly attributable borrowing costs, if any.



Spareparts having unit value of more than Rs.5 lakh that meets the criteria for recognition as Property, Plant and Equipment are recognised as Property, Plant and Equipment. Besides, spares of critical nature and irregular in use, which can be identified to a particular equipment and having unit value more than Rs.1 lakh is also recognised as Property, Plant and Equipment.

### 3.6 Subsequent expenditure

Expenditure on major inspection/maintenance or repairs including cost of replacing the parts of assets and overhaul costs where it is probable that future economic benefits associated with the expenditure will be available to the Group over a period of more than one year, are capitalised and the carrying amount of the identifiable parts so replaced is derecognised.

### 3.7 Capital work-in-progress

Assets in the course of construction for production and/or supply of goods or services or administrative purposes, or for which classification is not yet determined, are included under capital work in progress and are carried at cost, less any recognised impairment loss. Such capital work-in-progress, on completion, is transferred to the appropriate category of property, plant and equipment.

Expenses for assessment of new potential projects incurred till investment decision are charged to revenue. Expenditure incurred for projects after investment decisions are accounted for under capital work-in-progress and capitalized subsequently.

### 3.8 Depreciation and amortization

Depreciation on assets are provided on a straight line basis over their useful life of the asset, which has been determined considering the useful lives prescribed under Schedule II of the Companies Act, 2013 and technical estimations carried out by the Management.

Component of an item of property, Plant and Equipment with a cost that is significant in relation to the total cost of that item is depreciated separately if its useful life differs from the others components of the asset. The Parent Company has chosen a benchmark of Rs. 1 Crore as significant value for identification of a separate component except Pot relining which is considered as a component of each electrolytic pot due to its inherent nature and useful life.

The residual value of plant and machinery, vehicles, mobile equipment and earth moving equipments, railway facilities, rolling stock, and residential quarters are maintained at 5% of the original cost and for all other assets, the residual value is considered as Nil.

The estimated useful lives are reviewed at each year end and the effect of change, if any, is accounted for prospectively.

Useful lives of the assets considered for depreciation are described hereunder:

- (a) Useful life of immovable property, plant and equipment at bauxite mines if exceeds the period up to which bauxite reserve is available at respective mines is limited to that period. Such assets are depreciated over the period upto which bauxite reserve is available.
- (b) Useful life of captive thermal power generation plant at Angul is considered as 30 years.
- (c) Useful life of Steam Power Plant (SPP) at Damanjodi is considered as 25 years.
- (d) Useful life of Red mud pond and Ash pond at Alumina Refinery and Ash ponds at captive power plant are based on their estimated remaining useful lives, evaluated on the basis of technical estimates made periodically.
- (e) Useful life of assets laid on lease hold land excluding assets of Bauxite mines are considered to be lower of balance lease period or the useful life of the asset and are depreciated accordingly.
- (f) Assets laid on land not owned by the Group are depreciated over a period of five years from the date on which the asset is capable of operating in the manner intended by the management unless a longer / shorter life can be justified.
- (g) Individual Assets costing Rs.10,000/- or less are depreciated fully in the year in which they are put to use.
- (h) Property plant and equipment other than mentioned above are subject to the following useful lives.

Sl. No.	Particulars of asset category (Property Plant & Equipment)	Range of useful life in years
1	Buildings	30-60
2	Plant and machinery	15-40
3	Vehicles	08 - 10
4	Furniture and fixtures	08 - 10
5	Computer equipment	03 - 06





### 3.9 Disposal of assets

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal is recognised in the statement of profit and loss.

### 3.10 Stripping costs

Stripping costs in surface mining is recognized as an asset when they represent significantly improved access to ore provided all the following conditions are met:

- it is probable that the future economic benefit associated with the stripping activity will be realised;
- the component of the ore body for which access has been improved can be identified; and
- the costs relating to the stripping activity associated with the improved access can be reliably measured.

The stripping cost incurred during the production phase is added to the existing "stripping cost" asset to the extent the current period stripping ratio exceeds the planned stripping ratio.

The stripping activity asset is subsequently depreciated on a unit of production basis over the life of the identified component of the ore body that became more accessible as a result of the stripping activity and is then stated at cost less accumulated depreciation and any accumulated impairment losses.

### 3.11 Intangible Assets

#### 3.11.1 Intangible assets acquired separately

Intangible assets acquired are reported at cost less accumulated amortisation and accumulated impairment losses, if any. Intangible assets having finite useful life are amortised over their estimated useful lives. The estimated useful life and amortisation method are reviewed at the end of each annual reporting period, and the effect of any changes in estimate is accounted for on a prospective basis.

#### 3.11.2 Internally-generated intangible assets – research and development expenditure

Expenditure on research activities except capital expenditure considered as Property, plant and equipment, is recognized as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development is recognised if, and only if, all the conditions stipulated in Ind AS 38 – Intangible Asset are met.

#### 3.11.3 Mining Rights

The costs of mining rights include amounts paid towards Net Present Value (NPV) and upfront money as determined by the regulatory authorities.

Cost of mining rights are amortised over the total estimated remaining commercial reserves of mining property and are subject to impairment review.

#### 3.11.4 Mines Development Expenses

Expenditure incurred for mines development prior to commercial production i.e., primary development expenditure other than land, buildings, plant and equipment is capitalised until the mining property is capable of commercial production.

#### 3.11.5 User Rights

Amount of expenditure incurred in a cluster project having future economic benefits, with exclusive use of co-beneficiaries but without physical control on the assets are capitalized as user rights.

#### 3.11.6 Software

Operating software acquired separately (RDBMS, Sybase, ERP/SAP) are capitalized as software.

#### 3.11.7 License and Franchise

Amount of expenditure incurred for obtaining license for use of technology is capitalized as Intangibles under the head "License and Franchise".

#### 3.11.8 Derecognition of intangible assets

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, are recognised in the statement of profit and loss when the asset is derecognised.



### 3.11.9 Amortisation

The basis of amortization of intangible assets, based on useful life is as follows:

- (a) Licenses in the nature of technical know-how for processing plants which are available for the useful life of the respective processing plants are amortized over a period of ten years.
- (b) Software classified as intangible assets carries a useful life of 3 years.
- (c) Mining Rights and Mines Development Expenses are amortized over the period of availability of reserves.
- (d) User Right for cluster projects is amortized over a period of 10 years from the date of commissioning.

### 3.12 Impairment of tangible and intangible assets

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss, if any. If any such indication exists, the recoverable amount (i.e. higher of the fair value less cost to sell and the value-in-use) of the asset is estimated to determine the extent of impairment loss, if any. When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit (CGU) to which the asset belongs. If the recoverable amount of an asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount and the difference between the carrying amount and recoverable amount is recognised as impairment loss in the statement of profit or loss.

### 3.13 Functional & Foreign Currencies

Items included in the financial statements are measured using the currency of the primary economic environment i.e. Indian Rupee in which the Group operates. The Group's functional and reporting currency is Indian Rupees (INR). The financial statements are presented in Indian Rupees.

In preparing the financial statements, transactions in foreign currencies i.e. currencies other than the entity's functional currency are recognised at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are translated at the rates prevailing at that date.

Exchange differences on monetary items are recognised in the statement of profit and loss in the period in which they arise.

### 3.14 Provisions and contingencies

#### 3.14.1 Provisions

Provisions are recognised when there is a present obligation (legal or constructive) as a result of a past event and it is probable ("more likely than not") that it is required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the estimated cash outflows to settle the present obligation, its carrying amount is the present value of those cash outflows. The discount rate used is a pre tax risk free return that reflects current market assessments of the time value of money in that jurisdiction and the risks specific to the liability.

#### (a) Restoration, rehabilitation and decommissioning

An obligation to incur restoration, rehabilitation and environmental costs arises when environmental disturbance is caused by the development or ongoing production of a mine and other manufacturing facilities. The Group has recognized the obligated restoration, rehabilitation and decommissioning liability as per statutory mandate.

Net present value of such costs are provided for and a corresponding amount is capitalised at the commencement of each project. These costs are charged to the statement of profit or loss over the life of the asset by way of depreciation and unwinding of the discounted liability. The cost estimates are reviewed periodically and are adjusted to reflect known developments which may have an impact on the cost estimates or life of operations. The cost of the related asset is adjusted for changes in the provision due to factors such as updated cost estimates, changes in lives of operations, new disturbance and revisions of discount rates. The adjusted cost of the asset is depreciated prospectively over the lives of the assets to which they relate. The unwinding of the discount is shown as finance and other cost in the statement of profit or loss.

#### (b) Environmental liabilities

Environment liabilities are recognized when the Group becomes obliged, legally or constructively to rectify environmental damage or perform remediation work.



**(c) Litigation**

Provision is recognised once it has been established that the Group has a present obligation based on consideration of the information which becomes available up to the date of reporting.

**3.14.2 Contingent Liabilities**

Contingent liabilities are possible obligations that arises from past events, the existence of which would be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group. Contingent liabilities are disclosed in the financial statements unless the possibility of any outflow in settlement is remote.

**3.14.3 Contingent Assets**

Contingent assets are not recognized in the financial statement, but are disclosed where inflow of economic benefits is probable.

**3.15 Leases**

At the inception of a lease, the lease arrangement is classified as either a finance lease or an operating lease based on the substance of the lease arrangement.

**3.15.1 Assets taken on finance lease**

Finance leases are those that transfer substantially all the risks and rewards incidental to ownership to the lessee.

Finance leases are capitalised at the commencement of lease, at the lower of the fair value of the property or the present value of the minimum lease payments. The corresponding liability to the lessor is included in the balance sheet as a finance lease obligation. Lease payments are apportioned between finance charges and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly against income over the period of the lease.

**3.15.2 Assets taken on operating lease**

Leases other than finance leases are operating leases, and the leased assets are not recognized in the Group's balance sheet. Upfront lease payments, if any, made under operating leases are recognized in the statement of profit and loss over the term of the lease. Rent and maintenance charges paid for assets/facilities taken on operating leases are charged to revenue in the period in which they arise.

**3.16 Inventories**

Inventory of raw material, including bulk material such as coal and fuel oil are valued at cost net of tax credit wherever applicable.

Stores and spares other than those meeting the criteria for recognition as Property, Plant and Equipment are valued at cost net of tax credit wherever applicable.

Stores and spares (other than major spares considered as Property, Plant and Equipment) held but not issued for more than 5 years are valued at 5% of the cost.

Materials and other supplies held for use in the production (other than considered as non-moving) are not written down below cost, if the finished products in which they will be incorporated are expected to be sold at or above cost. These are stated below the cost at net realizable value if the finished products in which they are to be incorporated are sold below cost.

Cost of raw materials, stores and spares as stated above are determined on moving weighted average price.

Inventories of finished goods, semi-finished goods, intermediary products and work in process including process scrap are valued at lower of cost and net realizable value. Cost is generally determined at moving weighted average price of materials, appropriate share of labour and related overheads. Net realizable value is the estimated selling price in the ordinary course of business available on the reporting date less estimated cost necessary to make the sale.

Inventory of scraps internally generated are valued at net realizable value.

**3.17 Trade receivable**

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. If collection is expected to be collected within a period of 12 months or less from the reporting date, they are classified as current assets otherwise as non-current assets.

Trade receivables are measured at their transaction price unless it contains a significant financing component or pricing adjustments embedded in the contract.

**3.18 Financial Instruments**

Financial assets and liabilities are recognized when the Group becomes a party to the contractual provisions of the instrument.

Financial assets and liabilities are initially measured at fair value. Transaction cost that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value measured on initial recognition of financial asset or financial liabilities.



### 3.18.1 Financial assets

#### (a) Cash or Cash Equivalent

The Group considers all short term Bank deposits having a maturity period of three months or less as cash & cash equivalent. Term deposits in Bank with a maturity period of more than 3 months are considered as other Bank Balance.

#### (b) Financial assets at amortized cost

Financial assets are subsequently measured at amortized costs if the financial assets are held within a business model whose objective is to hold these assets in order to collect contractual cash flows and the contractual terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

#### (c) Financial assets at Fair value through Other Comprehensive Income (OCI)

Financial assets are measured at fair value through other comprehensive income if these financial assets are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and the contractual terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

#### (d) Financial assets at Fair value through Profit or loss

Financial assets are measured at fair value through profit or loss unless it is measured at amortized cost or at fair value through other comprehensive item on initial recognition. The transaction cost directly attributable to the acquisition of financial assets and liabilities at fair value through profit or loss are immediately recognized in the statement of profit or loss.

### 3.19 Financial liabilities

Trade and other payables are initially measured at transaction costs. Other financial liabilities are measured at amortized cost using the effective interest method.

### 3.20 De-recognition of financial assets

The Group derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

### 3.21 Impairment of financial assets

At each reporting date, the Group assess whether the credit risk on a financial instrument has increased significantly since initial recognition.

If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses. If, the credit risk on that financial instrument has increased significantly since initial recognition, the Group measures the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses.

The amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date is recognised as an impairment gain or loss in the statement of profit and loss.

### 3.22 Derecognition of financial liability

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or expired.

### 3.23 Offsetting financial instruments

Financial assets and liabilities of the Group are offset and the net amount reported in the balance sheet, when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business.

### 3.24 Derivatives

Derivative instruments such as forward foreign exchange contracts are recognised at fair value at the date the derivative contracts are entered into and are subsequently re-measured to their fair value at the end of each reporting period. The resulting gain or loss is recognised in statement of profit or loss immediately.

### 3.25 Borrowing cost

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for their intended use. All other borrowing cost is recognized in profit or loss in the period in which they are incurred.



### 3.25 Accounting for government grants

Government grants are recognized when there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognised in the statement of profit and loss on a systematic basis over the periods in which the Group recognises as expenses the related costs for which the grants are intended to compensate. Government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognized in the balance sheet by setting up the grant as deferred income and are transferred to profit or loss on a systematic basis over the useful life of the related assets.

Other government grants (grants related to income) are recognized as income over the periods necessary to match them with the costs for which they are intended to compensate, on a systematic basis. Grants related to income are presented under other income in the statement of profit and loss.

### 3.25a Employee Benefits

#### 3.26.1 Short-term employee benefits

A liability is recognized for benefits accruing to employees in respect of wages and salaries, short term compensated absences etc. in the period the related service is rendered at the undiscounted amount of the benefits expected to be paid.

#### 3.26.2 Post-employment and long term employee benefits

##### a) Defined contribution plans

A defined contribution plan is plan under which the Parent Company pays fixed contributions to a separate entity. Contributions to defined contribution retirement benefit plans are recognised as an expense when employees have rendered service entitling them for such contributions.

##### b) Defined benefit plans

For defined benefit plans, the cost of providing benefits is determined through actuarial valuation using the Projected Unit Credit Method, carried out at each balance sheet date. Re-measurement gains and losses of the net defined benefit liability are recognised immediately in other comprehensive income. The service cost, net of interest on the net defined benefit liability is treated as a net expense within employment costs.

Past service cost is recognised as an expense when the plan amendment or curtailment occurs or when any related restructuring costs or termination benefits are recognised.

The retirement benefit obligation recognised in the balance sheet represents the present value of the defined-benefit obligation as reduced by the fair value of plan assets.

##### c) Other long-term employee benefits

Liabilities recognised in respect of other long-term employee benefits are measured at the present value of the estimated future cash outflows expected to be made by the Parent Company in respect of services provided by employees up to the reporting date. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit retirement plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to the statement of profit and loss in the period in which they arise. These obligations are valued annually by independent actuaries.

### 3.27 Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable. Revenues are reduced by the estimated rebates and other similar allowances.

#### 3.27.1 Sales of Goods

The Group derives revenue primarily from sale of alumina and aluminium products.

The parent company recognizes revenue when all the following criteria are satisfied:

- (i) significant risks and rewards of ownership has been transferred to the customer;
- (ii) there is no continuing management involvement with the goods usually associated with ownership, nor effective control over the goods sold has been retained;
- (iii) the amount of revenue can be measured reliably;
- (iv) it is probable that the economic benefits associated with the transaction will flow to the Group;
- (v) recovery of the consideration is assured reasonably.



### 3.27.2 Sale of Energy

Sale of wind power is recognised on the basis of energy transmitted to DISCOMs at the price notified by respective authorities.

Sale of power from captive power plant is considered on the basis of quantity injected to state GRID excluding wheeling to Refinery but including inadvertent energy injection, at the price notified by appropriate authority.

Revenue from sale of energy is recognised if

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the Group;
- recovery of the consideration is assured reasonably.

### 3.27.3 Income from dividend and interest

#### a) Dividend

Dividends income from investments is recognised when the right to receive the dividend is established.

#### b) Interest

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued on a time proportion basis, by reference to the principal outstanding and effective interest rate.

#### c) Income from Incentives from Government Agencies

Incentives from government agencies in the nature of duty draw back and merchandise export incentive (MEIS) on exports and incentives on generation of renewable sources of energy are recognized as per the relevant statute on compliance of the conditions provided thereunder.

### 3.28 Income Taxes

Tax expense represents the sum of current tax and deferred tax.

#### 3.28.1 Current taxes

Current tax expense is based on taxable profit for the year as per the Income Tax Act, 1961. Current tax liabilities (assets) for the current and prior period are measured at amounts expected to be paid (or recovered) using the tax rates and tax laws that have been enacted or substantively enacted by the end of reporting period and includes any adjustment to tax payable in respect of previous years.

#### 3.28.2 Deferred taxes

Deferred tax expense or income is recognized on temporary difference between the carrying amount of assets and liabilities in the financial statements and the corresponding tax base used in computation of taxable profits.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period. Tax relating to items recognized directly in other comprehensive income forms part of the statement of comprehensive income.

Deferred tax is provided on all temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and adjusted to the extent it has become probable that sufficient taxable profits will be available to allow the asset to be recovered.

#### 3.29 Exceptional items

Exceptional items are items of income and expenses within profit or loss from ordinary activities but of such size, nature or incidence whose disclosure is felt necessary for better explanation of the performance of the Group.

#### 3.30 Restatement of material error / omissions

The value of errors and omissions is construed to be material for restating the opening balances of assets and liabilities and equity for the earliest prior period presented, if the sum total effect of earlier period income / expenses exceeds Rs.50 crore.

### Note No. 4 Critical accounting judgments and key sources of estimation uncertainty

The preparation of the financial statements requires management to make complex and/or subjective judgements, estimates and assumptions about matters that are inherently uncertain. These estimates and assumptions affect the reported amounts of assets and liabilities as well as disclosure of contingent liabilities and assets at the date of the financial statements and also revenues and expenses during the reported period.

The estimates and associated assumptions are based on past experience and other factors that are considered to be relevant. Actual results may differ from these estimates.



The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised.

#### 4.1 Critical judgments in applying accounting policies

The following is the critical judgement, apart from those involving estimations that the management have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the financial statements:

The management has decided that reporting of Group's financial assets at amortized cost would be appropriate in the light of its business model and have confirmed the Group's positive intention and ability to hold these financial assets to collect contractual cash flows.

#### 4.2 Key sources of estimation of uncertainty

The following are the key assumptions concerning the future, and other key sources of estimation of uncertainty at the end of the reporting period that may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

##### 4.2.1 Impairment

Investments in Associates and other investments, loans and advances, property, plant and equipment and intangible assets are reviewed for impairment whenever events and changes in circumstances indicate that the carrying value may not be fully recoverable or atleast annually.

Future cash flow estimates of Cash Generating Units which are used to calculate the asset's fair value are based on expectations about future operations primarily comprising estimates about production and sales volumes, commodity prices, reserves and resources, operating rehabilitations and restoration costs and capital expenditure.

##### 4.2.2 Useful lives of property, plant and equipment

The Group reviews the useful life of property, plant and equipment at the end of each reporting period. This reassessment may result in change in depreciation expense in future periods.

##### 4.2.3 Assessment of Mining Reserve

Changes in the estimation of mineral reserves where useful lives of assets are limited to the life of the project, which in turn is limited to the life of the probable and economic feasibility of reserve, could impact the useful lives of the assets for charging depreciation. Bauxite reserves at Mines is estimated by experts in extraction, geology and reserve determination and based on approved mining plan submitted to Indian Bureau of Mines (IBM).

##### 4.2.4 Obligation for post employment benefit Liability

Liability for post employment benefit and long term employee benefit is based on valuation by the actuary which is in turn based on realistic actuarial assumptions.

##### 4.2.5 Provisions & Contingent Liabilities

The amount recognized as a provision, including tax, legal, restoration and rehabilitation, contractual and other exposures or obligations is the best estimate of the consideration required to settle the related liability, including any interest charges, taking into account the risks and uncertainties surrounding the obligation. The Group assess its liabilities and contingent liabilities based upon the best information available, relevant tax and other laws, contingencies involved and other appropriate requirements.

##### 4.2.6 Fair value measurements and valuation processes

For financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Group can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

### Note 5. First time adoption- mandatory exceptions, optional exemptions

The Group has adopted all the applicable accounting standards (Ind AS) in accordance with Ind AS 101 – First Time Adoption of Indian Accounting Standards. The Group has transitioned from Indian GAAP which is its previous GAAP, as defined in Ind AS 101 with necessary disclosures relating to reconciliation of Shareholders' equity and the comprehensive net income as per Previous GAAP to Ind AS.



The financial statements for the year ended 31st March 2017, are the Group's first financial statements prepared in accordance with Ind AS. Prior to adoption of Ind AS, the Group had been preparing its financial statements in accordance with Accounting Standards notified under the Companies (Accounting Standards) Rules, 2006 and other generally accepted accounting principles in India together referred to as "Indian GAAP for all periods up to and including the year ended 31st March, 2016.

#### **5.1 Overall principle**

The Group has prepared the opening balance sheet as per Ind AS as on 1st April, 2015 (the transition date) by recognizing all assets and liabilities whose recognition is required by Ind AS, not recognizing items of assets and liabilities which are not permitted by Ind AS, by reclassifying items from previous GAAP to Ind AS as required under Ind AS, and applying Ind AS in measurement of recognized assets and liabilities. However, this principle is subject to certain exception and certain optional exemptions availed by the Group as detailed below:

##### **5.1.1 Derecognition of financial assets and financial liabilities**

The Group has applied the derecognition requirements of financial assets and financial liabilities prospectively for transactions occurring on or after 1st April, 2015 (the transition date).

##### **5.1.2 Classification of debt instruments**

The Group has determined the classification of its debt instruments in terms of whether they meet the amortised cost criteria or the fair value through other comprehensive income (FVTOCI) criteria based on the facts and circumstances that existed as of the transition date.

##### **5.1.3 Impairment of financial assets**

The Group has applied the impairment requirements of Ind AS 109 retrospectively; however, as permitted by Ind AS 101, it has used reasonable and supportable information that is available without undue cost or effort to determine the credit risk at the date that financial instruments were initially recognized in order to compare it with the credit risk at the transition date. Further, the Group has not undertaken an exhaustive search for information when determining, at the date of transition to Ind ASs, whether there have been significant increases in credit risk since initial recognition, as permitted by Ind AS 101.

##### **5.1.4 Assessment of embedded derivatives**

The Group has assessed whether an embedded derivative is required to be separated from the host contract and accounted for as a derivative on the basis of the conditions that existed at the later of the date it first became a party to the contract and the date when there has been a change in the terms of the contract that significantly modifies the cash flows that otherwise would be required under the contract.

##### **5.1.5 Past Business combinations**

The Group has elected not to apply Ind AS 103 Business Combinations retrospectively to past business combinations that occurred before the transition date of 1 April, 2015. Consequently,

- The Group has kept the same classification for the past business combinations as in its previous GAAP financial statements;
- The Group has not recognized assets and liabilities that were not recognized in accordance with previous GAAP in the balance sheet of the acquirer and would also not qualify for recognition in accordance with Ind AS in the separate balance sheet of the acquiree;
- The Group has excluded from its opening balance sheet those items recognized in accordance with previous GAAP that do not qualify for recognition as an asset or liability under Ind AS;

The above exemption in respect of business combinations has also been applied to past acquisitions of investments in associates and interest in joint ventures, as defined in Ind AS 103.

##### **5.1.6 Deemed cost for property, plant and equipment and intangible assets**

The Group has elected to continue with the carrying value of all of its plant and equipment and intangible assets recognized as of 1 April, 2015 (transition date) measured as per the previous GAAP and use that carrying value as its deemed cost as of the transition date.

##### **5.1.7 Deemed cost for investment in subsidiaries, associates and joint ventures**

The Group has elected to continue with the carrying value of all of its investment in associates and joint venture recognized as of 1 April, 2015 (transition date) measured as per the previous GAAP and use that carrying value as its deemed cost as of the transition date.





## Notes to the consolidated financial statements

Amount in Rs. Crores

## 6. PROPERTY, PLANT AND EQUIPMENT

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Carrying amount of:</b>			
Freehold land	84.33	71.33	71.33
Buildings	564.63	560.48	554.30
Plant and equipment	6,300.69	5,751.95	5,895.13
Furniture and fixtures	7.65	7.43	6.49
Office equipments	7.32	6.97	7.85
Vehicles	8.93	9.76	12.44
Railway sidings	45.08	49.15	41.11
	<b>7,018.63</b>	<b>6,457.07</b>	<b>6,588.65</b>

	Freehold land	Buildings	Plant and equipment	Furniture and fixtures	Office equipment	Vehicles	Railway sidings	Total
<b>Cost or deemed cost</b>								
<b>Balance as at 01.04.2015</b>	71.33	554.30	5,895.13	6.49	7.85	12.44	41.11	6,588.65
Additions	-	42.94	225.40	2.99	3.60	0.35	12.57	287.85
Disposals	-	-	(6.67)	(0.01)	-	(0.06)	-	(6.74)
<b>Balance as at 31.03.2016</b>	71.33	597.24	6,113.86	9.47	11.45	12.73	53.68	6,869.76
Additions	13.03	41.27	982.44	2.62	4.18	1.81	-	1,045.35
Disposals	(0.03)	-	(17.38)	(0.06)	(0.12)	(0.10)	-	(17.69)
<b>Balance as at 31.03.2017</b>	84.33	638.51	7,078.92	12.03	15.51	14.44	53.68	7,897.42
<b>Accumulated depreciation and impairment</b>								
<b>Balance as at 01.04.2015</b>	-	-	-	-	-	-	-	-
Depreciation Expense	-	36.76	362.69	2.04	4.48	2.97	4.53	413.47
Disposals	-	-	(0.78)	-	-	-	-	(0.78)
<b>Balance as at 31.03.2016</b>	-	36.76	361.91	2.04	4.48	2.97	4.53	412.69
Depreciation Expense	-	37.12	417.45	2.38	3.79	2.55	4.07	467.36
Disposals	-	-	(1.13)	(0.04)	(0.08)	(0.01)	-	(1.26)
<b>Balance as at 31.03.2017</b>	-	73.88	778.23	4.38	8.19	5.51	8.60	878.79
<b>Carrying amount</b>								
<b>Balance as at 01.04.2015</b>	71.33	554.30	5,895.13	6.49	7.85	12.44	41.11	6,588.65
<b>Balance as at 31.03.2016</b>	71.33	560.48	5,751.95	7.43	6.97	9.76	49.15	6,457.07
<b>Balance as at 31.03.2017</b>	84.33	564.63	6,300.69	7.65	7.32	8.93	45.08	7,018.63

## Notes:

- Title deeds have been executed for freehold land acquired through State Government, except for land measuring 66.92 acres. The Group is in the process of conversion of freehold land for Industrial use and has taken-up matter with Revenue Authorities.
- Registration formalities in respect of office space for 6,459 Sq.ft purchased from Kolkata Municipal Development Authority valuing Rs. 5.50 Crores in Kolkata is under progress.
- During the year the Group has changed the estimated useful life of pot relining component of electrolytic pots from 40 years (the life of electrolytic pot) to 7 years (life of the pot relining). Such change in estimation has led to increase in depreciation by Rs. 58.52 crore with corresponding decrease in profit and carrying amount of the assets.



## Notes to the consolidated financial statements

Amount in Rs. Crores

### 7. CAPITAL WORK-IN-PROGRESS (CWIP)

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Capital Work-in-progress at cost	473.33	613.54	498.63
Construction materials including in transit (at cost)	42.10	43.55	47.49
	<b>515.43</b>	<b>657.09</b>	<b>546.12</b>
Less: Provision for impairment of capital work in progress	(0.78)	(0.79)	-
<b>Total Capital Work-in-progress</b>	<b>514.65</b>	<b>656.30</b>	<b>546.12</b>

- 7.1 The amount of capital work in progress includes an amount of Rs.41.40 crore ( previous year Rs.39.30 crore) towards infrastructural development expenditure directly attributable to Coal Mines Division.

### 8. INTANGIBLE ASSETS

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Carrying amount of:</b>			
User right (220KV substation)	11.81	13.62	15.43
Computer software	1.68	2.91	2.81
Mining rights [refer note 8.1]	111.83	113.77	107.72
Licenses	0.48	8.31	10.25
	<b>125.80</b>	<b>138.61</b>	<b>136.21</b>

	User right	Computer software	Mining rights	Licenses	Total intangible assets
<b>Cost or deemed cost</b>					
Balance as at 01.04.2015	15.43	2.81	107.72	10.25	136.21
Additions		1.66	13.39		15.05
Disposals					-
Balance as at 31.03.2016	15.43	4.47	121.11	10.25	151.26
Additions		0.19			0.19
Disposals					-
Balance as at 31.03.2017	15.43	4.66	121.11	10.25	151.45

	User right	Computer software	Mining rights	Licenses	Total intangible assets
<b>Accumulated depreciation and impairment</b>					
Balance as at 01.04.2015	-	-	-	-	-
Depreciation Expense	1.81	1.56	7.34	1.94	12.65
Disposals					-
Balance as at 31.03.2016	1.81	1.56	7.34	1.94	12.65
Depreciation Expense	1.81	1.42	1.94	7.83	13.00
Disposals					-
Balance as at 31.03.2017	3.62	2.98	9.28	9.77	25.65

	User right	Computer software	Mining rights	Licenses	Total intangible assets
<b>Carrying amount</b>					
Balance as at 01.04.2015	15.43	2.81	107.72	10.25	136.21
Balance as at 31.03.2016	13.62	2.91	113.77	8.31	138.61
Balance as at 31.03.2017	11.81	1.68	111.83	0.48	125.80

#### Notes:

- 8.1. The Group is operating its mining activities at Panchpatmali bauxite mines based on lease granted by Government of Odisha. In connection with lease renewal, the Group has paid NPV and related payments which is capitalized as intangible assets under Mining Rights and amortized on straight line basis as per the Accounting policies of The Group.

## Notes to the consolidated financial statements

## 9. INTANGIBLE ASSETS UNDER DEVELOPMENT

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Mining right	26.34	26.34	-
User rights	25.01	5.06	3.18
	<b>51.35</b>	<b>31.40</b>	<b>3.18</b>

- 9.1 Intangible assets under development (mining right) includes an amount of Rs. 26.34 crore towards part payment to Govt. of India against allotment of coal block.
- 9.2 Intangible assets under development (user right) includes an amount of Rs. 25.01 crore (previous year Rs. 5.06 crore) spent on 220 KV transmission line from Refinery plant to 220 KV switching station at Laxmipur, Koraput.

## 10. INVESTMENTS

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>A. Non-current</b>			
<b>A.1 Investments in equity instruments - (classified as at cost)</b>			
<b>A.1.1 Investment in associates</b>			
<b>Unquoted investments</b>			
NPCIL-NALCO Power Company Limited (26,000 shares of Rs. 10 each fully paid up)	0.01	0.01	0.01
<b>Total investment in associates</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>
<b>Details of associates</b>			
Details of each of the associates (not material) at the end of the year period are as follows			
Name of the associate	Principal Activity and place of incorporation and principal place of business	Proportion of ownership interest / voting rights held by the parent Company	
NPCIL-NALCO Power Company Limited	Development of nuclear power, Kakrapara, Gujarat	26%	26%
		26%	26%
<b>Financial Information in respect of individually not material associates</b>			
Aggregate information of associates that are not individually material		Year ended 31.03.2017	Year ended 31.03.2016
The Group's share of profit (loss) for the year		*	*
The Group's share of other Comprehensive income		-	-
The Group's share of total Comprehensive income		*	*
*Share of Profit of Associate for the year ended March 31, 2017 is Rs. 3,915.52 and for the year ended March 31, 2016 is Rs. 5,916.04			
<b>A.1.2 Investment in joint ventures</b>			
<b>Unquoted investments</b>			
Angul Aluminium Park Private Limited (As at 31.03.2017: 9,80,000 shares of Rs. 10 each fully paid up, as at 31.03.2016: 9,90,000 shares of Rs. 10 each fully paid up and as at 01.04.2015: 9,90,000 shares of Rs. 10 each fully paid up)	1.35	1.21	1.12
Share application money for 1,37,20,000 shares of Rs.10 each fully paid, shares yet to be allotted	13.72	-	-
<b>Total</b>	<b>15.07</b>	<b>1.21</b>	<b>1.12</b>

## Notes to the consolidated financial statements

### 10. INVESTMENTS

<b>A.1.2</b>	As approved by the Board of Directors of Angul Aluminium Park Privated Limited in the Board meeting held on 21.03.2017 the equity share holding of NALCO has decreased from 49.5% to 49% and the share holding of OIDC has increased from 50.5% to 51% The Board has also decided to issue 2,80,00,000 equity shares of Rs. 10/- each. The Parent Company (NALCO) has paid Rs. 13.71 crore (49% of equity) as on 31.03.2017. The shares are yet to be allotted.			
	GACL-NALCO Alkalies & Chemicals Private Limited (As at 31.03.2017: 20,00,000 shares of Rs. 10 each fully paid up, as at 31.03.2016: 40,000 shares of Rs. 10 each fully paid up and as at 01.04.2015: Nil)	1.00	-	
	Share application money for 2,28,00,000 shares of Rs. 10 each fully paid, shares yet to be allotted	22.80		
	<b>Total</b>	<b>23.80</b>	<b>-</b>	<b>-</b>
	During the year GACL-NALCO Alkalies & Chemicals Private Limited has issued 19,60,000 no of fully paid equity shares of Rs. 10/- each to NALCO.			
	The Parent Company has also paid an amount of Rs. 22.80 crore during the year towards share application money for 2,28,00,000 no. of equity share of Rs. 10/- each (fully paid) for which shares are yet to be allotted.			
	<b>Total investment in joint ventures</b>	<b>38.87</b>	<b>1.21</b>	<b>1.12</b>

#### Details of joint ventures

Details of each of the joint ventures (not material) at the end of the reporting period are as follows

Name of the joint venture	Principal Activity and place of incorporation and principal place of business	Proportion of ownership interest/ voting rights held by the Parent Company		
(a) Angul Aluminium Park Private Limited	Promoting aluminium specific downstream in Odisha, Bhubaneswar, Odisha, India	49.00%	49.50%	49.50%
(b) GACL-NALCO Alkalies & Chemicals Private Limited	Production of caustic soda, Vadodara, Gujrat, India	40.00%	40.00%	0.00%
<b>Financial Information in respect of individually not material joint ventures</b>				
Aggregate information of joint ventures that are not individually material			<b>Year ended 31.03.2017</b>	<b>Year ended 31.03.2016</b>
The Group's share of profit (loss) for the year			0.81	0.05
The Group's share of other Comprehensive income			-	-
The Group's share of total Comprehensive income			0.81	0.05
			<b>Year ended 31.03.2017</b>	<b>Year ended 31.03.2016</b>
Unrecognised share of losses of a joint venture				0.15
			-	0.15
<b>A.1.3</b>	<b>Investment in other entities</b>			
	<b>Unquoted investments</b>			
	Odisha Capital Market & Enterprises Limited. (2,89,000 shares of Rs. 1 each fully paid up)	0.03	0.03	0.03
	<b>Total - investments in other entities</b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>
	<b>Total - investments in equity instruments</b>	<b>38.91</b>	<b>1.25</b>	<b>1.16</b>

## Notes to the consolidated financial statements

## 10. INVESTMENTS

## A.2 Investments in Mutual Funds

Quoted investments	As at 31.03.2017		As at 31.03.2016		As at 31.03.2015	
	No. of Units	Amount in Rs. Crore	No. of Units	Amount in Rs. Crore	No. of Units	Amount in Rs. Crore
UTI FTIF SERIES XVIII - X		-	20,000	23.51		-
UTI FTIF SERIES XVIII- XII		-	40,000	46.89		-
UTI FTIF SERIES XVIII- XIII		-	40,000	46.77		-
UTI FTIF SERIES XIX- I		-	25,000	29.14		-
UTI FTIF SERIES XIX-III		-	75,000	87.36		-
UTI FTIF SERIES XIX - IV		-	25,000	29.10		-
UTI FTIF SERIES XIX- VI		-	50,000	58.13		-
UTI FTIF SERIES XIX- VIII		-	35,000	40.68		-
UTI FTIF SERIES XIX-IX		-	100,000	115.96		-
UTI FTIF SERIES XIX - X		-	10,000	11.59		-
UTI FTIF SERIES XIX-XI		-	60,000	69.47		-
SBI SDFS-366 Days-Series-A-20		-	50,000	58.79		-
SBI SDFS-366 Days-Series-A-22		-	50,000	58.78		-
SBI SDFS-366 Days-Series-A-24		-	50,000	35.01		-
SBI SDFS-366 Days-Series-A-27		-	30,000	58.27		-
SBI SDFS-366 Days-Series-A-28		-	50,000	46.48		-
SBI SDFS-366 Days-Series-A-31		-	40,000	40.57		-
SBI SDFS-366 Days-Series-A-32		-	35,000	28.97		-
SBI SDFS-366 Days-Series-A-34		-	25,000	57.81		-
<b>Total - investments in mutual funds</b>		-		<b>943.28</b>		-
<b>Total non-current investments</b>		<b>38.91</b>		<b>944.53</b>		<b>1.16</b>
<b>Additional Information</b>						
Aggregate book value of quoted investments and market value thereof			-	943.28		-
Aggregate carrying amount of unquoted investments		38.91		1.25		1.16
Aggregate amount of impairment in value of investments		-		-		-



Notes to the consolidated financial statements

Amount in Rs. Crores

10. INVESTMENTS

Current	As at 31.03.2017		As at 31.03.2016		As at 01.04.2015	
	Units in '000	Amount in Rs. Crore	Units in '000	Amount in Rs. Crore	Units in '000	Amount in Rs. Crore
<b>Investments in Mutual Funds</b>						
<b>Quoted Investments</b>						
UTI FTIF SERIES XVIII – V	-	-	-	-	45,000	49.06
UTI FTIF SERIES XVIII – VIII	-	-	-	-	40,000	43.46
UTI FTIF SERIES XVIII – X	20,000	25.44	-	-	20,000	21.68
UTI FTIF SERIES XVIII – XII	40,000	50.81	-	-	40,000	43.17
UTI FTIF SERIES XVIII – XIII	40,000	50.74	-	-	40,000	43.05
UTI FTIF SERIES XIX – I	25,000	31.64	-	-	25,000	26.87
UTI FTIF SERIES XIX – III	75,000	94.65	-	-	75,000	80.47
UTI FTIF SERIES XIX – IV	25,000	31.53	-	-	25,000	26.79
UTI FTIF SERIES XIX – VI	50,000	62.87	-	-	50,000	53.50
UTI FTIF SERIES XIX – VIII	35,000	43.96	-	-	35,000	37.43
UTI FTIF SERIES XIX – IX	100,000	125.58	-	-	100,000	106.73
UTI FTIF SERIES XIX – X	10,000	12.54	-	-	10,000	10.66
UTI FTIF SERIES XIX – XI	60,000	75.18	-	-	60,000	63.93
BOI AXA FMP Series I4	-	-	-	-	5,000	5.43
SBI SDFS-366 Days-Series-A-20	-	-	-	-	50,000	54.31
SBI SDFS-366 Days-Series-A-22	50,000	63.58	-	-	50,000	54.14
SBI SDFS-366 Days-Series-A-24	50,000	63.56	-	-	50,000	54.07
SBI SDFS-366 Days-Series-A-27	30,000	37.87	-	-	30,000	32.27
SBI SDFS-366 Days-Series-A-28	50,000	63.04	-	-	50,000	53.73
SBI SDFS-366 Days-Series-A-31	40,000	50.22	-	-	40,000	42.86
SBI SDFS-366 Days-Series-A-32	35,000	43.88	-	-	35,000	37.43
SBI SDFS-366 Days-Series-A-34	25,000	31.31	-	-	25,000	26.73
SBI SDFS-366 Days-Series-A-35	50,000	62.69	-	-	50,000	53.29
BOI AXA Liquid Fund	499	50.01	110	11.00	-	-
Canara Robeco Liquid	298	30.00	109	11.00	-	-
IDBI Liquid Fund	299	30.01	110	11.00	-	-
SBI Premier Liquid Fund	299	30.01	110	11.00	-	-
Union KBC Liquid	300	30.00	110	11.00	-	-
UTI Money Market Fund	299	30.01	110	11.00	-	-
<b>Total - Other current Investments</b>		<b>1,221.13</b>		<b>66.00</b>		<b>1,021.06</b>

Additional Information

Aggregate book value of quoted investments and market value thereof	1,221.13		66.00		1,021.06
Aggregate carrying amount of unquoted investments	-		-		-
Aggregate amount of impairment in value of investments	-		-		-

Category-wise other investments - as per Ind AS 109 classification

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Financial assets (quoted investments) mandatorily measured at fair value through profit or loss (FVTPL)	1,221.13	1,009.28	1,021.06
	<b>1,221.13</b>	<b>1,009.28</b>	<b>1,021.06</b>

## Notes to the consolidated financial statements

## 11. TRADE RECEIVABLES

A.	Non-current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Unsecured, considered good	-		
(b)	Unsecured, considered doubtful	37.11	37.11	37.11
	Less: Allowance for doubtful debts (expected credit loss allowance)	37.11	37.11	37.11
	<b>Net non-current trade receivables</b>	-	-	-
B.	Current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Unsecured, considered good	184.25	235.21	120.82
(b)	Unsecured, considered doubtful	-		
	Less: Allowance for doubtful trade receivables	-		
	<b>Net current trade receivables</b>	<b>184.25</b>	<b>235.21</b>	<b>120.82</b>

## Notes:

- 11.1 The sale of goods (Alumina and Aluminium) is made against either advances received from customer or letter of credit. The advance received from customer is adjusted on supply of material. There is no credit period allowed for such sales and accordingly no interest is charged. The average credit period for sale of wind power is 30 days from the date of metering which is considered as collection period. There is no commercial arrangement for sale of inadvertent thermal power generated at captive power plant. It is linked to the wheeling arrangement in view of the plant requirement. The amount of receivable on account of such inadvertent power sale (net of payable for power purchase) takes a longer period for collection. There is no net receivable for such sale as the purchases are at substantially higher rate compared to sale. Since there is no commercial arrangement for sale of wind and thermal power, no interest is recognised.
- 11.2 Out of the trade receivable as at March 31, 2017, Rs.23.21 crores is due from Jodhpur DISCOM for sale of wind power and Rs. 82.17 crore is outstanding from M/s Glencore International on account of export of metal. There is no other customers who represent more than 5% of the total balance of trade receivables.
- 11.3 The Group has used a practical approach by computing the expected credit loss allowance for trade receivable based on a case to case basis. Since there is no credit period for sale of alumina and aluminum and the sale is either made against an advance or secured backed by letter of credit (LC) given by the customer, no provision is made against such receivables. For sale of wind power, although there is no credit arrangement, The Group makes provision for allowances based on the industrial credit loss experience and adjusted for forward looking information.

11.4	Age of receivables (at gross)	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
	<b>Alumina and Aluminium</b>			
	0-30 days (LC/ Bills discounting)	144.13	198.35	96.99
	More than 30 days (provided for)	37.11	37.11	37.11
		<b>181.24</b>	<b>235.46</b>	<b>134.10</b>
	<b>Wind Power</b>			
	Within the credit period	6.79	3.75	7.96
	1-30 days past due	4.84	2.75	-
	More than 30 days past due	28.49	30.36	15.87
		<b>40.12</b>	<b>36.86</b>	<b>23.83</b>



## Notes to the consolidated financial statements

Amount in Rs. Crores

### 12 LOANS

A. Non-current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a) Loans to employees			
Secured, considered good	68.62	75.38	75.38
Unsecured, considered good	11.69	31.61	31.61
(b) Loans to others			
Secured, considered good	0.29	0.34	0.36
<b>Total non-current loans</b>	<b>80.60</b>	<b>107.33</b>	<b>107.35</b>
B. Current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a) Loans to employees			
Secured, considered good	20.57	11.03	19.63
Unsecured, considered good	15.58	18.36	18.36
(b) Loans to related parties			
Secured, considered good [refer note 12.2]	0.04	0.06	0.10
(c) Loans to others			
Secured, considered good	0.51	0.75	0.52
<b>Total current loans</b>	<b>36.70</b>	<b>30.20</b>	<b>38.61</b>

12.1 The above loans are carried at amortised cost.

12.2 The amount of loan outstanding from the related parties is the amount of house building loan taken by the directors of the Parent Company in the capacity of employee prior to their directorship. Further information on these loans is set out in note 43-Related party disclosure.

### 13 OTHER FINANCIAL ASSETS

A. Non current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Security deposits	10.77	8.04	5.99
<b>Total other non-current financial assets</b>	<b>10.77</b>	<b>8.04</b>	<b>5.99</b>
Classification of other financial assets:			
Unsecured, considered good	10.77	8.04	5.99
<b>Total other non-current financial assets</b>	<b>10.77</b>	<b>8.04</b>	<b>5.99</b>
B. Current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a) Security deposits [refer note 13.2]	151.00	151.00	151.00
(b) Advances to employees	44.35	38.84	31.20
(c) Insurance claims receivables	12.66	11.22	11.96
(d) Derivative assets - forward contract	-	0.92	-
<b>Gross other current financial assets</b>	<b>208.01</b>	<b>201.98</b>	<b>194.16</b>
<b>Less: Allowance for bad and doubtful other current financial assets</b>			
(a) Advances to employees	44.35	38.84	31.20
(b) Insurance claims	7.17	6.40	6.45
<b>Total allowance for bad and doubtful other current assets</b>	<b>51.52</b>	<b>45.24</b>	<b>37.65</b>
<b>Total other current financial assets</b>	<b>156.49</b>	<b>156.74</b>	<b>156.51</b>
Classification of other current financial assets:			
Unsecured, considered good	156.49	156.74	156.51
Doubtful	51.52	45.24	37.65
<b>Gross other current financial assets</b>	<b>208.01</b>	<b>201.98</b>	<b>194.16</b>

13.1 The above assets are carried at amortised cost.

13.2 An amount of Rs. 151 crore deposited towards security deposit with Gujrat Mineral Development Corporation (GMDC) is due for refund as the Parent Company has cancelled the plan to set up Alumina refinery at Gujrat. The refund process is under active consideration by M/s. GMDC. The Board of Directors of M/s. GMDC has already cleared the proposal which is awaiting approval from the Govt. of Gujrat. Hence, no provision is considered necessary for this deposit.



## Notes to the consolidated financial statements

## 14. CURRENT TAX ASSETS

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Income tax	34.12	102.92	127.77
<b>Total current tax assets</b>	<b>34.12</b>	<b>102.92</b>	<b>127.77</b>

## 15. OTHER ASSETS

A.	Non-current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Capital advances	114.88	210.03	104.78
(b)	Advances other than capital advance:			
	Advance with public bodies			
(1)	Customs, excise, sales tax, port trusts etc.	250.27	235.44	219.14
(2)	Deposits with Income Tax Authority	603.50	535.79	518.09
(3)	Other Government authorities	4.01	1.32	1.44
(c)	Others			
	Prepaid expenses			
(1)	Prepaid lease payments for leased lands	5.26	13.74	9.93
(2)	Prepaid expenses on employee loans	26.86	27.61	32.61
	<b>Gross other non-current assets</b>	<b>1,004.78</b>	<b>1,023.93</b>	<b>885.99</b>
	<b>Less: Allowance for bad and doubtful other non-current assets</b>			
(a)	Capital advances	0.27	0.50	0.50
	<b>Total allowance for bad and doubtful other non-current assets</b>	<b>0.27</b>	<b>0.50</b>	<b>0.50</b>
	<b>Total other non-current assets</b>	<b>1,004.51</b>	<b>1,023.43</b>	<b>885.49</b>
	<b>Classification of other non-current assets:</b>			
	Secured, considered good			
	Unsecured, considered good	1,004.51	1,023.43	885.49
	Doubtful	0.27	0.50	0.50
	<b>Gross other non-current assets</b>	<b>1,004.78</b>	<b>1,023.93</b>	<b>885.99</b>
B.	Current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
	Advances other than capital advances			
(a)	Claims with statutory authorities			
(1)	Export Incentive Claims	27.16	27.44	23.82
(2)	Generation Based Incentive on power generated from renewable source and Renewable energy certificates	4.09	5.67	4.82
(3)	VAT and CENVAT Credit Recoverable	266.81	323.43	304.37
(4)	Claims receivable from customs, excise and railway	10.29	10.29	7.62
(b)	Prepaid expenses			
(1)	Prepaid lease payments for leased lands	17.39	2.06	-
(2)	Prepaid expenses on employee loans	5.37	5.00	6.56
(3)	Other prepaid expenses	4.43	4.17	3.89

Notes to the consolidated financial statements

Amount in Rs. Crores

B.	Current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
	<b>Advances other than capital advances</b>			
(c)	Gold medallion and stamp in hand	0.08	0.19	0.20
(d)	Other receivables	1.70	1.66	2.47
(e)	Other advances			
	(i) Advances to employees	23.06	23.88	23.13
	(ii) Advances to suppliers and service providers	391.49	321.84	288.87
	(iii) Others	30.13	19.05	39.38
	<b>Gross other current assets</b>	<b>782.00</b>	<b>744.68</b>	<b>705.13</b>
	<b>Less: Allowance for bad and doubtful other current assets</b>			
(a)	VAT and CENVAT Credit Recoverable	188.83	137.04	87.69
(b)	Claims receivable from customs, excise and railway authorities	7.74	7.74	3.48
(c)	Other receivables	0.38	0.32	0.43
(d)	Advances to suppliers and service providers	2.45	2.44	2.39
(e)	Others	2.66	2.72	2.68
	<b>Total allowance for bad and doubtful other current assets</b>	<b>202.06</b>	<b>150.26</b>	<b>96.67</b>
	<b>Total other current assets</b>	<b>579.94</b>	<b>594.42</b>	<b>608.46</b>
	<b>Classification of other current assets:</b>			
	Unsecured, considered good	579.94	594.42	608.46
	Doubtful	202.06	150.26	96.67
	<b>Gross other current assets</b>	<b>782.00</b>	<b>744.68</b>	<b>705.13</b>

16. INVENTORIES

		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Raw materials	75.69	112.21	118.05
(b)	Work-in-progress	236.37	216.50	202.22
(c)	Intermediaries	93.62	103.24	108.01
(d)	Finished goods	222.72	136.37	136.90
(e)	Coal and fuel oil	186.71	156.97	130.43
(f)	Stores and spares	328.60	314.71	382.56
(g)	Scrap and disposables	12.22	15.01	25.19
	<b>Total inventories</b>	<b>1,155.93</b>	<b>1,055.01</b>	<b>1,103.36</b>
	<b>Included above, goods-in-transit:</b>			
(i)	Raw materials	9.80	30.18	11.22
(ii)	Coal and fuel oil	32.44	23.17	1.96
(iii)	Stores and spares	15.81	12.28	21.19
	<b>Total goods-in-transit</b>	<b>58.05</b>	<b>65.63</b>	<b>34.37</b>

- 16.1 The cost of inventories recognised as an expense during the year is Rs. 3487.46 crore (during 2015-16: Rs. 3123.34 crore)
- 16.2 The cost of inventories recognised as an expense includes Rs. 13.02 crore (during 2015-16 Rs. 10.84 crore) in respect of write-downs of inventory for non moving items.
- 16.3 The inventories are hypothecated/pledged against cash credit facility.
- 16.4 The method of valuation of inventories has been stated in note 3.16 - Significant accounting policy.

## Notes to the consolidated financial statements

## 17.A. Cash and cash equivalents

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a) Balances with banks			
(i) Balance with scheduled banks			
(i) In current account	24.83	28.30	3.68
(ii) In deposit account ( having original maturity less than three months)	-	626.12	-
<b>Total cash and cash equivalents</b>	<b>24.83</b>	<b>654.42</b>	<b>3.68</b>

The above balances are also considered as cash and cash equivalents for drawing of cash flow statement.

## 17.B Bank balances (other than Cash and cash equivalents)

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a) In deposit account ( having original maturity between 3-12 months)	2,260.61	4,443.63	4,792.30
(b) Earmarked balance with scheduled banks	1.79	5.10	5.00
<b>Total other bank balances</b>	<b>2,262.40</b>	<b>4,448.73</b>	<b>4,797.30</b>

## Note:

- 17.B.1 Earmarked balance with scheduled banks represents amount deposited in scheduled banks towards unclaimed dividends.  
17.B.2 Amount due for credit to Investor's Education and Protection Fund at the end of the current year Rs. Nil. (previous year Rs. Nil)

## 18. SHARE CAPITAL

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Authorised Capital</b>			
6,00,00,00,000 fully paid-up equity shares of Rs. 5 each	3,000.00	3,000.00	3,000.00
	<b>3,000.00</b>	<b>3,000.00</b>	<b>3,000.00</b>
<b>Issued and subscribed capital comprises:</b>			
1,93,29,28,884 fully paid-up equity shares of Rs. 5 each (As at 31.03.2016 and 01.04.2015: 2,57,72,38,512 fully paid-up equity shares of Rs. 5 each	966.46	1,288.62	1,288.62
	<b>966.46</b>	<b>1,288.62</b>	<b>1,288.62</b>

## 18.1 Fully paid equity shares

	Number of shares	Amount Rs. in Crore
Balance as at 01.04.2015	2,57,72,38,512	1,288.62
Changes in equity share capital during the period	-	-
Balance as at 31.03.2016	2,57,72,38,512	1,288.62
Changes in equity share capital during the period		
Buy-back of equity shares by the Parent Company	(64,43,09,628)	(322.16)
<b>Balance as at 31.03.2017</b>	<b>1,93,29,28,884</b>	<b>966.46</b>

- (i) Fully paid equity shares, which have a par value of Rs. 5 each, carry one vote per share and carry a right to dividends.  
(ii) The Parent Company has bought back 64,43,09,628 no. of equity shares of Rs. 5 each during the year which has led to decrease in the equity share capital from Rs. 1,288.62 Crores to Rs. 966.46 Crores (from 2,57,72,38,512 no. of equity shares to 1,93,29,28,884 no. of equity shares of Rs. 5 each).  
(iii) The shares bought back during the year were extinguished on September 26, 2016.



Notes to the consolidated financial statements

Amount in Rs. Crores

18.2 Details of shares held by each shareholder holding more than 5% of shares

	As at 31.03.2017		As at 31.03.2016		As at 01.04.2015	
	Number of shares held	% of holding of equity shares	Number of shares held	% of holding of equity shares	Number of shares held	% of holding of equity shares
<b>Fully paid equity shares</b>						
Government of India	1,44,14,82,490	74.58%	2,08,57,82,622	80.93%	2,08,57,82,622	80.93%
Life Insurance Corporation of India	20,43,84,512	10.57%	17,73,16,005	6.88%	18,82,51,981	7.30%

Details of shares held by the holding entity (Govt. of India) has been shown in the note 18.2 above

19. OTHER EQUITY

		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Capital redemption reserves	322.16	-	-
(b)	General reserve	8,620.53	11,461.22	11,461.22
(c)	Retained earnings	296.00	445.08	173.89
<b>Total</b>		<b>9,238.69</b>	<b>11,906.30</b>	<b>11,635.11</b>

19.1 Movement in other equity

Other equity	Reserves and Surplus			
	Capital redemption reserves	General reserve	Retained earnings	Total
<b>Balance as at 01.04.2015</b>	-	<b>11,461.22</b>	<b>173.89</b>	<b>11,635.11</b>
Profit for the year	-	-	787.16	787.16
Other comprehensive income (net of taxes)	-	-	26.85	26.85
<b>Total comprehensive income for the year</b>	-	-	<b>814.01</b>	<b>814.01</b>
Final dividend for previous year	-	-	(128.86)	(128.86)
Tax on final dividend for previous year	-	-	(26.22)	(26.22)
Interim dividend for the year	-	-	(322.16)	(322.16)
Tax on interim dividend for the year	-	-	(65.58)	(65.58)
Transfer of Ind AS transition reserve to profit and loss	-	-	-	-
<b>Balance as at 31.03.2016</b>	-	<b>11,461.22</b>	<b>445.08</b>	<b>11,906.30</b>
Profit for the year	-	-	667.72	667.72
Other comprehensive income (net of taxes)	-	-	9.08	9.08
<b>Total comprehensive income for the year</b>	-	-	<b>676.80</b>	<b>676.80</b>
Premium on Buy-back of equity shares	-	(2,512.81)	-	(2,512.81)
Expenses on Buy-back of equity shares	-	(5.72)	-	(5.72)
Transfer of general reserve to Capital redemption reserve	322.16	(322.16)	-	-
Final dividend for previous year	-	-	(144.97)	(144.97)
Tax on final dividend for previous year	-	-	(29.51)	(29.51)
Interim dividend for the year	-	-	(541.22)	(541.22)
Tax on interim dividend for the year	-	-	(110.18)	(110.18)
<b>Balance as at 31.03.2017</b>	<b>322.16</b>	<b>8,620.53</b>	<b>296.00</b>	<b>9,238.69</b>

## Notes to the consolidated financial statements

- 19.2 The Parent Company has bought back its own equity shares on September 26, 2016 out of general reserve amounting to Rs. 2834.97 crore and consequently a sum equal to the nominal value of the shares so bought back amounting to Rs. 322.16 Crores have been transferred to the capital redemption reserve account in terms of section 69 of the Companies Act, 2013.
- 19.3 The amount in the general reserve that can be distributed by the Group as dividends to its equity shareholders is determined based upon the financial statements and also considering the requirements of the Companies Act, 2013. Thus, the amount reported above under retained earnings are not distributable in its entirety.
- 19.4 The liability for post retirement medical benefits based on actuarial valuation as on 31.03.2015 under previous GAAP was revised from Rs. 6.82 crore to Rs.72.32 crore due to error of omission. The differential amount was recognised as a change to the retained earnings as on the transition date. Accordingly an amount of Rs.42.83 crore and Rs. 22.66 crore has been adjusted with retained earning account and deferred tax liability respectively.
- 19.5 As per the earlier GAAP, the Parent Company has provided an amount of Rs.193.29 crore as final dividend for financial year 2015-16 and dividend distribution tax of Rs.39.35 crore. After adoption of Ind AS, the said amount has been taken to retained earnings from which an amount of Rs.144.97 crore and Rs.29.51 crore has been released towards final dividend and dividend distribution tax as approved by share holders in 36th AGM held on 30th Sept'2016. Reduction in the amount of final dividend for 2015-16 and dividend distribution tax is due to reduction of share capital on account of buyback of shares of the Parent Company prior to distribution of dividend.
- 19.6 During the year the Parent Company has paid interim dividend of Rs.2.80 per equity share amounting in total Rs. 541.22 crore. For financial year 2015-16, the parent Company paid interim dividend of Rs. 322.16 crore and final dividend of Rs. 144.97 crore.

## 20. BORROWINGS

Current (secured at amortised cost)	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Liabilities towards bills discounted	51.09	-	-
<b>Total other current financial liabilities</b>	<b>51.09</b>	<b>-</b>	<b>-</b>

## Notes:

Liability towards bills discounted as at March 31, 2017 relates to bills raised on customers which have been discounted with the bank under the cash credit facility of the Parent Company. For the first time the Parent Company recognises the liability for bills discounted but not collected by the bank from the customer/ confirmed acceptance by the accepting bank on the reporting date. Source of such information is the negotiating bank and these data are maintained by the bank in the electronic mode which are updated on a realtime basis. These informations are not available with the bank for past periods. Hence, the figures for the corresponding period ended at March 31, 2016 and March 31, 2015 could not be made available. However, the bills discounted as on March 31, 2016 and March 31, 2015 have already been collected by the negotiating bank. As on March 31, 2017 there is no such case pertaining to earlier periods.

## 21. TRADE PAYABLES

		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>A</b>	<b>Non-current</b>			
(1)	Creditors for supplies and services			
	- Dues to micro and small enterprises	-	-	-
	- Others	19.61	16.30	19.82
	<b>Total non-current trade payables</b>	<b>19.61</b>	<b>16.30</b>	<b>19.82</b>
<b>B.</b>	<b>Current</b>			
(1)	Creditors for supplies and services			
	- Dues to micro and small enterprises	3.09	1.26	2.85
	- Others	653.80	535.54	433.56
(2)	Accrued wages and salaries	187.57	102.76	130.16
	<b>Total current trade payables</b>	<b>844.46</b>	<b>639.56</b>	<b>566.57</b>

## Notes to the consolidated financial statements

### Notes:

- 21.1 The credit period on purchases varies from contract to contract based on the terms of payment in each contract. In none of the contract interest is charged. The Parent Company has financial risk management policy in place to ensure that all payables are paid as per agreed terms.
- 21.2 Accrued wages and salaries includes liability provisions towards pay revision arrear of the employees for the period January 1, 2017 to March 31, 2017 amounting to Rs. 81.07 crore and diversion of PRMBS allocation to NPS amounting to Rs. 35.79 crore. [refer note 33]
- 21.3 Dues payable to Micro and Small Enterprises as defined in the Micro, Small and Medium Enterprises Development Act, 2006 have been determined to the extent such parties have been identified on the basis of information available with the Group. The disclosure pursuant to said Act is as under:

Particulars	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
i) Principal amount due #	4.49	2.12	3.05
ii) Interest on principal amount due	Nil	Nil	Nil
iii) Interest and principal amount paid beyond appointment day	Nil	Nil	Nil
iv) The amount of interest due and for the period of delay in making payment (which have been paid but beyond the appointed day during the year) but without adding the amount of interest specified under MSMSE Development Act 2006.	Nil	Nil	Nil
v) The amount of interest accrued and remaining unpaid at the end of the year.	Nil	Nil	Nil
vi) The amount of further interest remaining due and payable even in the succeeding years, until such date when the interest due as above are actually paid to the small enterprise, for the purpose of disallowance as a deductible expenditure under section 23 of MSMSE Development Act 2006.	Nil	Nil	Nil

# The principal amount due mentioned above includes trade payable [refer note 21] and other financial liabilities [refer note 22]

### 22. OTHER FINANCIAL LIABILITIES

A. Non current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Creditors for capital supplies and services			
- Dues to micro and small enterprises	-	-	-
- Others	2.36	1.58	3.07
<b>Total other non-current financial liabilities</b>	<b>2.36</b>	<b>1.58</b>	<b>3.07</b>
B. Current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a) Unpaid dividends	1.79	5.10	5.00
(b) Creditors for other liabilities			
(1) Creditors for capital supplies and services			
- Dues to micro and small enterprises	1.40	0.86	0.20
- Others	359.66	311.39	361.78
(2) Security deposits from customers	1.57	1.85	1.51
(3) Refund due to customers	14.52	2.02	2.02
(4) Liabilities for discount on sales to customers	88.62	79.84	102.78
(5) Employees' recoveries	1.54	1.29	1.98
<b>Total other current financial liabilities</b>	<b>469.10</b>	<b>402.35</b>	<b>475.27</b>

### Notes:

Dues payable to Micro and Small Enterprises as defined in the Micro, Small and Medium Enterprises Development Act, 2006 have been determined to the extent such parties have been identified on the basis of information available with the Group. The disclosure pursuant to said Act has been made at note 21.3.

## Notes to the consolidated financial statements

## 23. PROVISIONS

A. Non-current		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Provision for employee benefits			
(1)	Retirement benefits obligations			
(i)	Post retirement medical benefits scheme (PRMBS)	57.17	56.21	64.09
(ii)	Settling in benefit on retirement	2.40	2.37	5.39
(iii)	Nalco benevolent fund scheme (NBFS)	2.51	2.56	-
(iv)	Nalco retirement welfare scheme( NRWS)	10.32	9.92	-
(v)	Retirement gift	6.68	6.20	-
(2)	Other long-term employee benefits			
(i)	Compensated absences	210.57	181.62	214.08
(ii)	Long service rewards	8.88	7.67	6.69
(iii)	Nalco employees family financial assistance rehabilitation scheme(NEFFARS)	7.50	7.31	10.02
(b)	Other Provisions			
(1)	Asset restoration obligations/dismantling	21.70	18.37	16.99
(2)	Other legal and constructive obligations	0.38	8.89	8.22
<b>Total non current provisions</b>		<b>328.11</b>	<b>301.12</b>	<b>325.48</b>

B. Current		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(a)	Provision for employee benefits			
(1)	Retirement benefits obligations			
(i)	Retiring gratuity	12.08	8.60	2.05
(ii)	Post retirement medical benefits scheme (PRMBS)	7.14	5.02	8.32
(iii)	Settling in benefit on retirement	0.01	0.37	0.59
(iv)	Nalco benevolent fund scheme (NBFS)	1.35	1.38	-
(v)	Nalco retirement welfare scheme( NRWS)	3.52	3.21	-
(vi)	Retirement gift	0.67	0.72	-
(2)	Other Long-term employee benefits			
(i)	Compensated absences	20.26	15.73	15.36
(ii)	Long service rewards	0.62	0.63	2.08
(iii)	Nalco employees family financial assistance rehabilitation scheme (NEFFARS)	20.29	13.90	10.20
(b)	Other Provisions			
(1)	towards corporate social responsibility (CSR)	33.36	37.59	48.71
(2)	towards other legal and constructive obligations	17.77	-	-
<b>Total current provisions</b>		<b>117.07</b>	<b>87.15</b>	<b>87.31</b>

Notes to the consolidated financial statements

23. PROVISIONS

C.	Movement of provisions	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
(1)	<b>Movement of retirement benefit obligations [refer note 33]</b>			
(2)	<b>Movement of employee benefits</b>			
		<b>Compensated absences</b>	<b>Long service rewards</b>	<b>NEFFARS</b>
	<b>Balance at 01.04.2015</b>	<b>229.44</b>	<b>8.77</b>	<b>20.22</b>
	Additional provisions recognised	75.76	1.13	12.49
	Reductions arising from payments	(124.58)	(1.72)	(11.50)
	Change arising from remeasurement	16.73	0.11	-
	<b>Balance at 31.03.2016</b>	<b>197.35</b>	<b>8.29</b>	<b>21.21</b>
	Additional provisions recognised	70.55	1.13	19.68
	Reductions arising from payments	(47.64)	(0.71)	(13.10)
	Reductions arising from remeasurement	10.57	0.79	-
	<b>Balance at 31.03.2017</b>	<b>230.83</b>	<b>9.50</b>	<b>27.79</b>
(3)	<b>Movement of other Provisions</b>			
		<b>Asset restoration obligation</b>	<b>Legal and Constructive Obligation</b>	<b>Corporate social responsibility (CSR)</b>
	<b>Balance at 01.04.2015</b>	<b>16.99</b>	<b>8.22</b>	<b>48.71</b>
	Additional provisions recognised	-	-	-
	Reductions arising from payments	-	-	(11.12)
	Unwinding of discount	1.38	0.67	
	<b>Balance at 31.03.2016</b>	<b>18.37</b>	<b>8.89</b>	<b>37.59</b>
	Additional provisions recognised	1.66	8.51	-
	Reductions arising from payments	-	-	(4.23)
	Unwinding of discount	1.67	0.75	-
	<b>Balance at 31.03.2017</b>	<b>21.70</b>	<b>18.15</b>	<b>33.36</b>

Note:

- 23.1 Details of provisions related to employee benefit under defined benefit plan has been disclosed at note 33.
- 23.2 Provision related to long term employee benefit i.e compensated absences (accumulated earned Leave, Half pay Leave & Sick Leave), Long service rewards are provided as per the Parent Company's rule and liability for the same is recognised on the basis of actuarial valuation by independent actuary.
- 23.3 Provision for asset restoration obligation and constructive obligation is made based on management estimation in line with Ind AS 16 and Ind AS 37 respectively.
- 23.4 Provision for CSR expenditure is the unspent CSR obligation of the Parent Company prior to introduction of Companies Act 2013.





## Notes to the consolidated financial statements

Amount in Rs. Crores

## 24. DEFERRED TAX LIABILITIES

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Deferred tax liabilities	1,492.97	1,400.66	1,300.30
Deferred tax assets	247.39	236.55	185.01
	1,245.58	1,164.11	1,115.29

2015-16	Opening Balance as at 01.04.2015	Recognised in profit or loss	Recognised in other comprehensive income	Closing balance as at 31.03.2016
<b>Deferred tax liabilities relating to:</b>				
Property, plant and equipment	(1,275.71)	(89.79)	-	(1,365.50)
FVTPL financial assets	(24.59)	(10.57)	-	(35.16)
<b>Deferred tax liabilities</b>	<b>(1,300.30)</b>	<b>(100.36)</b>	<b>-</b>	<b>(1,400.66)</b>
<b>Deferred tax assets in relation to:</b>				
Provision for compensated absences and other employee benefits	85.91	(7.40)	-	78.51
Provision for defined benefit obligation	30.65	14.00	(14.21)	30.44
Provision for doubtful debts / advances	18.62	39.20	-	57.82
Others	49.83	19.95	-	69.78
<b>Deferred tax liabilities</b>	<b>185.01</b>	<b>65.75</b>	<b>(14.21)</b>	<b>236.55</b>
<b>Deferred tax (liabilities) / assets (net)</b>	<b>(1,115.29)</b>	<b>(34.61)</b>	<b>(14.21)</b>	<b>(1,164.11)</b>

2016-17	Opening balance as at 01.04.2016	Recognised in profit or loss	Recognised in other comprehensive income	Closing balance as at 31.03.2017
<b>Deferred tax liabilities relating to:</b>				
Property, plant and equipment	(1,365.50)	(98.43)	-	(1,463.93)
FVTPL financial assets	(35.16)	6.12	-	(29.04)
<b>Deferred tax liabilities</b>	<b>(1,400.66)</b>	<b>(92.31)</b>	<b>-</b>	<b>(1,492.97)</b>
<b>Deferred tax assets in relation to:</b>				
Provision for compensated absences and other employee benefits	78.51	14.28	-	92.79
Provision for defined benefit obligation	30.44	12.46	(4.80)	38.10
Provision for doubtful debts / advances	57.82	27.04	-	84.86
MAT credit entitlement		17.46		17.46
Others	69.78	(55.60)	-	14.18
<b>Deferred tax assets</b>	<b>236.55</b>	<b>15.64</b>	<b>(4.80)</b>	<b>247.39</b>
<b>Deferred tax (liabilities) / assets (net)</b>	<b>(1,164.11)</b>	<b>(76.67)</b>	<b>(4.80)</b>	<b>(1,245.58)</b>



## Notes to the consolidated financial statements

Amount in Rs. Crores

### 25. OTHER LIABILITIES

A.	Non-current	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
	(i) Deposits under NEFFARS	48.27	50.38	42.42
<b>Total other non-current liabilities</b>		<b>48.27</b>	<b>50.38</b>	<b>42.42</b>
B.	Current			
	(i) Revenue received in advance	73.36	37.90	45.43
	(ii) Statutory and other dues			
	(a) Electricity duty	22.09	20.92	13.43
	(b) Tax deducted and collected at source	15.13	14.89	13.66
	(c) Contribution to NEPF trust and NPS	30.02	23.22	29.93
	(d) Disputed dues towards water charges [refer note 25.2]	839.97	662.21	522.43
	(e) Others (Service tax, excise duty etc)	114.59	63.10	44.61
	(iii) Renewable energy purchase obligation [refer note 25.1]	60.34	25.99	18.43
	(iv) Deposits under NEFFARS	13.25	3.29	3.83
	(v) Grants for property, plant and equipment	0.61	0.58	0.36
	(vi) Other credit balances	0.85	0.79	0.65
<b>Total other current liabilities</b>		<b>1,170.21</b>	<b>852.89</b>	<b>692.76</b>

**Note:**

25.1 As per the provisions of Odisha Electricity Regulatory Commission (OERC) notification dated 1st August 2015, Nalco, being an obligated entity has the obligation to generate power equal to 4.5% (Previous year 3%) of its total consumption from renewable sources comprising of 1.50% (Previous Year 0.50%) from Solar renewable source and 3% (previous year 2.5%) from Non solar renewable source.

The Parent Company has fulfilled its non solar obligation (through wind power generation) for the current year and part obligation for previous years. Cumulative Non solar obligation as on 31.3.2017 is Rs.3.16 Crore (previous year Rs.2.75 crore) towards 21,066 (previous year 18,297) numbers of Non-solar REC valued @ Rs. 1,500 (Previous year Rs. 1,500) per certificate. It may be mentioned that during the year 1,14,493 Nos of Non solar REC has been self retained by the Parent Company as a compliance to Renewable Purchase Obligation. Due to non-fulfilment of the obligation to generate required quantum of power from renewable source of Solar energy the Parent Company has provided cumulative liability up to 31.3.2017 for Rs.57.18 crore ( previous year Rs.23.24 Crore) towards 1,63,371 (previous year 66,413) numbers of Solar REC valued @ Rs.3,500 ( previous year Rs.3,500) per certificate.

25.2 The Water Resources Department, Govt. of Odisha having territorial jurisdiction over the Govt. water sources raised the claims in the parent company for water charges and interest on unpaid water charges in terms of The Orissa Irrigation Rules, 1961. The water charge have been fully paid although disputed. Interest there on has been provided for a conservative basis although not admitted by the parent company.

### 26. CONTINGENT LIABILITIES (TO THE EXTENT NOT PROVIDED FOR)

		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
Claims against the Group not acknowledged as debts				
<b>a.</b>	<b>Demand from statutory authority</b>			
	1. Sales Tax	427.84	411.52	445.60
	2. Excise duty	165.46	102.05	83.35
	3. Custom duty	52.00	5.77	5.77
	4. Service tax	2.31	2.35	2.26
	5. Income tax	797.94	688.36	1079.37
	6. Entry tax and road tax	253.19	288.67	214.46
	7. Land acquisition and interest there on	44.21	43.49	43.83
	8. Stamp duty	204.53	205.97	211.64
	9. Demand from Deptt. of mines Govt. of Odisha	136.32	136.30	90.05
	10. NPV related demand under Mining lease	93.10	93.10	106.04
	11. Employee state insurance		0.32	0.32
	12. Provident fund commissioner		-	0.05
<b>b.</b>	<b>Claim by contractors/suppliers and others</b>			
	1. Claims of Contractor's suppliers and others	270.96	159.41	163.27
	<b>Total</b>	<b>2,447.86</b>	<b>2,137.31</b>	<b>2,446.01</b>



## Notes to the consolidated financial statements

Amount in Rs. Crores

Claims against the Group not acknowledged as debt includes:

- i. Demand from various statutory authorities towards income tax, sales tax, excise duty, custom duty, service tax, entry tax and other government levies. The Parent Company is contesting the demand at appellate authorities. It is expected that the ultimate outcome of these proceedings will be in favour of the Parent Company and will not have any material adverse effect on the Group's financial position and results of operation.
- ii. Claims of contractors for supply of materials/services pending with arbitration/courts those have arisen in the ordinary course of business. The Parent Company reasonably expect that these legal actions when ultimately concluded and determined will be in favour of the Parent Company and will not have material adverse effect on the Group's results of operation or financial position.

26.1 Movement of contingent liabilities		As at 31.03.2016	Settled during the year	Addition during the year	As at 31.03.2017
<b>A.</b>	<b>Demand by statutory authority</b>				
1.	Sales Tax	411.52	(1.04)	17.36	427.84
2.	Excise duty	102.05	(74.17)	137.58	165.46
3.	Custom duty	5.77	(0.83)	47.06	52.00
4.	Service tax	2.35	(0.06)	0.02	2.31
5.	Income tax	688.36	-	109.58	797.94
6.	Entry tax and road tax	288.67	(40.31)	4.83	253.19
7.	Land acquisition and interest there on	43.49	(0.17)	0.89	44.21
8.	Stamp duty	205.97	(1.44)	-	204.53
9.	Demand from Deptt. of mines Govt. of Odisha	136.30	-	0.02	136.32
10.	NPV related demand under Mining lease	93.10	-	-	93.10
11.	Employee state insurance	-	-	-	-
12.	Provident fund commissioner	0.32	(0.32)	-	-
<b>B.</b>	<b>Claim by contractors/suppliers and others</b>				
1.	Claims of Contractor's suppliers and others	159.41	(44.96)	156.51	270.96
	<b>Total</b>	<b>2,137.31</b>	<b>(163.30)</b>	<b>473.85</b>	<b>2,447.86</b>

## 27. CAPITAL COMMITMENTS

		As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
a)	Estimated amount of Contracts remaining to be executed on capital account and not provided for	201.84	667.60	207.54
b)	Other Commitments			
(1)	The Parent Company has been allotted Utkal D and E coal block by Govt. of India. As per the terms of allotment, the Parent Company has paid an amount of Rs. 26.34 crore and the balance instalments not yet due.	18.11	18.11	Nil
(2)	The Parent Company has been allotted Utkal D by Govt. of India which was earlier allotted to the project proponents. As per the terms of allotment, the Parent Company has to pay Rs. 108.36 crore to the project proponent of which Rs. 13.15 crore has been paid. Balance amount to be paid after transfer of title deed of land.	95.18	Nil	Nil
(3)	The Parent Company has imported capital goods under Export Promotion Capital Goods Scheme (EPCG) of the Government of India at concessional rates of duty under the scheme to fulfill quantified export for duty saved Rs.19.62 crores as at March 31,2017, Rs. 6.95 crores March 31, 2016 and Rs. 8.90 crores as at March 31, 2015.	117.69	41.68	53.41
	<b>Total</b>	<b>432.82</b>	<b>727.39</b>	<b>260.95</b>



## Notes to the consolidated financial statements

Amount in Rs. Crores

### 28. DETAILS OF SPECIFIED BANK NOTES (SBN) HELD AND TRANSACTED DURING THE PERIOD 08.11.2016 TO 30.12.2016 (PURSUANT TO MCA NOTIFICATION NUMBER G.S.R. 308(E) DATED 30.03.2017)

Particulars	Specified Bank Notes (SBNs)	Other denomination notes	Total
	Amount (Rs)	Amount (Rs)	Amount (Rs)
Closing Cash in hand as on 08.11.2016	18,11,500	1,30,323	19,41,823
(+) Permitted Receipts	-	71,75,887	71,75,887
(-) Non-Permitted Receipts	81,000	-	81,000
(-) Permitted payments /use	-	24,64,416	24,64,416
(-) Non-Permitted payments /use	9,000	-	9,000
(-) Amount deposited in Banks	18,83,500	42,35,148	61,18,648
Closing cash in hand as on 30.12.2016	-	6,06,646	6,06,646

**Note:**

- 28.1 The non-permitted receipts relates to the amount collected at the hospitals situated at different plant sites of the Parent Company. The Parent Company extends it's medical services to the non-entitled category on chargeable basis. The local residents, mostly villagers, vendors and associates avail healthcare facilities by paying nominal charges.
- 28.2 The non-permitted payments relates to the payments made by the employees for emergency official expenses immediately after demitisation.
- The above items are considered to arrive at the closing cash in hand as on 30.12.2016

### 29. REVENUE FROM OPERATIONS

		Year ended 31.03.2017	Year ended 31.03.2016
(a)	Sale of products (including excise duty)		
	1) Export:		
	i) Alumina	2,443.04	2,198.27
	ii) Aluminium	1,181.95	1,048.60
	2) Domestic:		
	i) Alumina	141.21	119.92
	ii) Aluminium	4,090.24	3,734.24
(b)	Sale of power		
	i) Thermal power	4.75	5.26
	ii) Wind Power	71.80	50.26
(c)	Other operating income		
	1) Export Incentives		
	i) Alumina	30.25	43.78
	ii) Aluminium	38.98	38.52
	2) Incentives on Renewable Energy		
	i) Renewable Energy certificates	28.67	22.80
	ii) Generation based incentives	8.18	7.58
	3) Own manufactured goods internally used /capitalised	10.95	-
<b>Revenue from operations</b>		<b>8,050.02</b>	<b>7,269.23</b>

**Note:**

- 29.1 Domestic sale of Alumina and Aluminium includes excise duty amounting to Rs. 15.88 crore (previous year Rs. 13.52 crore) and Rs. 478.63 crore (previous year Rs. 439.69 crore) respectively.
- 29.2 Income from own manufactured goods relates to the finished goods (anode stem and rolled sheets) produced for internal consumption.

## Notes to the consolidated financial statements

## 30. OTHER INCOME

	Year ended 31.03.2017	Year ended 31.03.2016
(a) Interest income		
(i) Interest income earned from financial assets that are not designated as at fair value through profit or loss:		
- Bank deposits	265.65	435.73
- Loans to employees	14.23	16.53
- Other financial assets carried at amortised cost	0.70	0.77
(ii) Interest income earned towards Income tax refund	12.06	13.86
(b) Dividend income		
- Dividends from current investments	8.78	5.19
(c) Net foreign exchange gain/(loss)	(7.90)	5.98
(d) Net gain/(loss) on financial assets designated as at FVTPL	77.81	74.49
(e) Net gain/(loss) on sale of other non-current investments	-	0.70
(f) Write back of liabilities no longer required	14.29	33.57
(g) Income from internally generated scrap	9.04	6.52
(h) Others	13.61	11.79
<b>Total other income</b>	<b>408.27</b>	<b>605.13</b>

## 31. COST OF MATERIALS CONSUMED

A. Raw material	Year ended 31.03.2017	Year ended 31.03.2016
(1) Caustic soda	677.30	585.26
(2) C.P. coke	269.47	302.64
(3) C.T. pitch	101.13	94.98
(4) Aluminium flouride	60.05	50.69
(5) Lime	44.45	41.03
(6) Others	29.39	29.81
<b>Total raw materials consumed</b>	<b>1,181.79</b>	<b>1,104.41</b>
B. Power and Fuel		
(1) Coal	1,531.39	1,285.27
(2) Fuel oil	455.71	398.22
(3) Duty on own generation	214.06	172.68
(4) Purchased power	3.99	1.89
(5) Power transmission charges	7.38	6.55
<b>Total Power and Fuel consumed</b>	<b>2,212.53</b>	<b>1,864.61</b>

## 32. CHANGES IN INVENTORIES OF FINISHED GOODS, INTERMEDIARIES AND WORK-IN-PROCESS

	Year ended 31.03.2017	Year ended 31.03.2016
<b>Finished goods</b>		
Opening stock		
(1) Bauxite	7.73	4.83
(2) Chemical	93.81	94.32
(3) Aluminium	25.98	28.53
<b>Opening stock</b>	<b>127.52</b>	<b>127.68</b>
Add: Excise duty		
(1) Bauxite	-	-
(2) Chemical	6.06	4.87
(3) Aluminium	2.79	4.35
<b>Excise duty on opening stock</b>	<b>8.85</b>	<b>9.22</b>
<b>Total opening stock of finished goods</b>	<b>136.37</b>	<b>136.90</b>

Notes to the consolidated financial statements

Amount in Rs. Crores

32. CHANGES IN INVENTORIES OF FINISHED GOODS, INTERMEDIARIES AND WORK-IN-PROCESS (contd.)

	Year ended 31.03.2017	Year ended 31.03.2016
<b>Less:</b>		
Closing stock		
(1) Bauxite	3.07	7.73
(2) Chemical	154.15	93.81
(3) Aluminium	41.52	25.98
<b>Closing stock</b>	<b>198.74</b>	<b>127.52</b>
Add: Excise duty		
(1) Bauxite	-	-
(2) Chemical	18.22	6.06
(3) Aluminium	5.76	2.79
<b>Excise duty on closing stock</b>	<b>23.98</b>	<b>8.85</b>
<b>Total Closing stock of finished goods</b>	<b>222.72</b>	<b>136.37</b>
<b>(Accretion)/Depletion in finished goods</b>	<b>(86.35)</b>	<b>0.53</b>
<b>Intermediaries</b>		
Opening stock		
Anodes	96.08	103.49
Others	7.17	4.52
<b>Total opening stock of intermediaries</b>	<b>103.25</b>	<b>108.01</b>
Less: Closing stock		
Anodes	82.97	96.08
Others	10.65	7.17
<b>Total closing stock of intermediaries</b>	<b>93.62</b>	<b>103.25</b>
<b>(Accretion)/depletion in intermediaries</b>	<b>9.63</b>	<b>4.76</b>
<b>Work in process</b>		
Opening stock	216.50	202.22
Less: Closing stock	236.37	216.50
<b>(Accretion)/depletion in work in process</b>	<b>(19.87)</b>	<b>(14.28)</b>
<b>Total (Accretion)/Depletion in inventory</b>	<b>(96.59)</b>	<b>(8.99)</b>

33. EMPLOYEE BENEFIT EXPENSE

	Year ended 31.03.2017	Year ended 31.03.2016
(a) Salaries and wages, including bonus	1,240.25	1,122.40
(b) Contribution to provident and other funds		
1) Provident fund	96.00	92.12
2) Gratuity	29.38	27.69
3) Post employment pension scheme	88.54	88.42
(c) Staff welfare expenses	83.27	67.70
<b>Total employee benefit expense</b>	<b>1,537.44</b>	<b>1,398.33</b>

33.A. Employee benefit provisions

- i) Pay Revision of Executive and Non Executive Employees

The pay revision of the executive and non-executive employees of the Parent Company is due from 1st January 2017. Accordingly, the Parent Company has provided the estimated liability amounting to Rs.81.74 crore for the period 01.01.2017 to 31.3.2017.

- ii) Diversion to NPS

Out of the 30% cap for superannuation benefit for executive employees, the Parent Company has decided to divert 2% to National Pension Scheme (NPS) out of 6% allocation towards Post Retirement Medical Benefit Scheme (PRMBS). The estimated impact of 2% diversion to National Pension Scheme (NPS) of Rs.35.76 crore which has been provided in the accounts of 2016-17.



## Notes to the consolidated financial statements

### 33. EMPLOYEE BENEFIT EXPENSE

#### 33.B Employee benefit plans

##### 33.B.1 Defined contribution plans

- a) **Provident fund:** The Parent Company pays fixed contribution to Provident Fund at predetermined rates, to a separate trust, which invests the funds in permitted securities. On contributions, the trust is required to pay a minimum rate of interest to the members, as specified by Govt. of India. Where the trust is unable to pay interest at the declared rate for the reasons that the return on investment is less or for any other reason, then the deficiency shall be made good by the Parent Company.
- b) **Pension fund:** The Parent Company pays fixed contribution to the trustee bank of PFRDA, which in turn invests the money with the insurers as specified by the employee concerned. The Parent Company's liability is limited only to the extent of fixed contribution.

##### 33.B.2 Defined benefit plans

- a) **Gratuity:** Gratuity payable to employees as per The Payment of Gratuity Act subject to a maximum of Rs.10,00,000/-. The gratuity scheme is funded by the Parent Company and is managed by a separate trust. The liability for gratuity under the scheme is recognised on the basis of actuarial valuation.
- b) **Post retirement medical benefit:** The benefit is available to retired employees and their spouses who have opted for the benefit. Medical treatment as an inpatient can be availed from the Parent Company's hospital/Govt. Hospital/ hospitals as per the Parent Company's rule. They can also avail treatment as out patient subject to ceiling limit of expenses fixed by the Parent Company. The liability under the scheme is recognised on the basis of actuarial valuation.
- c) **Settling-in-benefit:** On superannuation /retirement/termination of service, if opted for the scheme, the transfer TA is admissible to the employees and / or family for the last head quarters to the hometown or any other place of settlement limited to distance of home town. Transport of personal conveyance shall also be admissible. The liability for the same is recognised on the basis of actuarial valuation.
- d) **NALCO Benevolent Fund Scheme :** The objective of the scheme is to provide financial assistance to families of the members of the scheme who die while in employment of the Parent Company. As per the scheme there will be contribution by members @ Rs.30/- per member per death, in the event of death of a member while in the service of the Parent Company and matching contribution by the Parent Company. The liability for the same is recognised on the basis of actuarial valuation.
- e) **NALCO Retirement Welfare Scheme :** The objective of the scheme is to provide financial assistance as a gesture of goodwill for post retirement support to employees retiring from the services of the Parent Company. As per the scheme the recovery form each employee member would be Rs. 10/- per retiring member. The Parent Company would provide equivalent sum as matching contribution. The liability for the same is recognised on the basis of actuarial valuation.
- f) **Superannuation gift scheme:** The objective of the scheme is to recognise the employees superannuating or retiring on medical ground from the services of the Parent Company. The scheme includes a gift item worth of Rs. 25000/- per retiring employees to be presented on superannuation/ retirement. The liability for the same is recognised on the basis of actuarial valuation.

#### 33.3 Other long term employees benefits

- a) **Compensated absences:** The accumulated earned leave, half pay leave & sick leave is payable on separation, subject to maximum permissible limit as prescribed in the leave rules of the Parent Company. During the service period encashment of accumulated leave is also allowed as per the rules of the Parent Company. The liability for the same is recognised on the basis of actuarial valuation.
- b) **Long Service Reward :** The employee who completes 25 years of service are entitled for a long service reward which is equal to one month basic pay and DA. The liability for the same is recognised on the basis of actuarial valuation.
- c) **NEFFARS :** In the event of disablement/death, the Parent Company pays monthly benefit to the employee/ nominee at their option and on deposit of prescribed amount as stipulated under the scheme upto the date of notional superannuation. The liability for the same is recognised on the basis of actuarial valuation.

The employee benefit plans typically expose the Parent Company to actuarial risks such as actuarial risk, investment risk, interest risk, longevity risk and salary risk:-

- i. **Actuarial risk:** It is the risk that benefits will cost more than expected. This can arise due to one of the following reasons: Adverse Salary Growth Experience. Salary hikes that are higher than the assumed salary escalation will result into an increase in obligation at a rate that is higher than expected.  
**Variability in mortality rates:** If actual mortality rates are higher than assumed mortality rate assumption than the gratuity benefits will be paid earlier than expected. Since there is no condition of vesting on the death benefit, the acceleration of cashflow will lead to an actuarial loss or gain depending on the relative values of the assumed salary growth and discount rate.  
**Variability in withdrawal rates:** If actual withdrawal rates are higher than assumed withdrawal rate assumption than the gratuity benefits will be paid earlier than expected. The impact of this will depend on whether the benefits are vested as at the resignation date.
- ii. **Investment risk:** For funded plans that rely on insurers for managing the assets, the value of assets certified by the insurer may not be the fair value of instruments backing the liability. In such cases, the present value of the assets is independent of the future discount rate. This can result in wide fluctuations in the net liability or the funded status if there are significant changes in the discount rate during the inter-valuation period.



## Notes to the consolidated financial statements

Amount in Rs. Crores

- iii. **Interest risk:** The defined benefit obligation calculated uses a discount rate based on government bonds. If bond yields fall, the defined benefit obligation will tend to increase.
- iv. **Longevity risk:** The present value of the defined benefit plan liability is calculated by reference to the best estimate of the mortality of plan participants both during and after their employment. An increase in the life expectancy of the plan participants will increase the plan's liability.
- v. **Salary risk:** The present value of the defined benefit plan liability is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the plan's liability.

The principal assumptions used for the purposes of the actuarial valuations were as follows:

	Valuation as at		
	31-Mar-17	31-Mar-16	31-Mar-15
Discount rate(s)	7.25%	8.00%	8.00%
Expected rate(s) of salary increase	6%	6%	6%
Mortality	IALM 2006-2008 ULTIMATE	IALM 2006-2008 ULTIMATE	IALM 2006-2008 ULTIMATE
Attrition Rate	1%	1%	1%

Amounts recognised in statement of profit and loss in respect of these defined benefits plans are as follows:-

	Year ended 31.03.2017	Year ended 31.03.2016
Service Cost		
Current Service Cost	(35.34)	(63.47)
Net Interest expense	(22.45)	(23.04)
Components of defined benefit costs recognised in profit or loss	(57.79)	(86.51)
Remeasurement on the net defined benefit liability:		
Return on the net defined benefit liability	9.35	(3.87)
Actuarial (Gain)/losses arising from changes in financial assumptions	(17.38)	-
Actuarial (Gain)/losses arising from experience assumptions	21.91	21.90
Components of defined benefit costs recognised in other comprehensive income	13.88	18.03
<b>Total</b>	<b>(43.91)</b>	<b>(68.48)</b>

The current service cost and the net interest expense for the year are included in the "Employee benefits expense" line item in the consolidated statement of profit and loss.

The remeasurement of the net defined liability is included in other comprehensive income.

The amount included in the balance sheet arising from the entity's obligation in respect of its defined benefit plans is as follows:

	Post retirement medical benefit	Setting-in-benefit	NALCO benevolent fund scheme	NALCO retirement welfare scheme	Super-annuation gift scheme	Gratuity (Funded)
<b>April 01, 2015</b>						
Present value of defined benefit obligation	(72.41)	(5.98)	-	-	-	(293.76)
Fair value of plan assets	-	-	-	-	-	291.71
<b>Net liability arising from defined benefit obligation</b>	<b>(72.41)</b>	<b>(5.98)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(2.05)</b>
<b>March 31, 2016</b>						
Present value of defined benefit obligation	(61.24)	(2.74)	(3.94)	(13.13)	(6.92)	(298.02)
Fair value of plan assets	-	-	-	-	-	290.25
<b>Net liability arising from defined benefit obligation</b>	<b>(61.24)</b>	<b>(2.74)</b>	<b>(3.94)</b>	<b>(13.13)</b>	<b>(6.92)</b>	<b>(7.77)</b>



## Notes to the consolidated financial statements

## 33. EMPLOYEE BENEFIT EXPENSE

	Post retirement medical benefit	Settling-in-benefit	NALGO benevolent fund scheme	NALGO retirement welfare scheme	Super-annuation gift scheme	Gratuity (Funded)
<b>March 31, 2017</b>						
Present value of defined benefit obligation	(64.31)	(2.41)	(3.86)	(13.84)	(7.34)	(314.04)
Fair value of plan assets	-	-	-	-	-	302.10
Net liability arising from defined benefit obligation	(64.31)	(2.41)	(3.86)	(13.84)	(7.34)	(11.94)

Movements in the present value of the defined benefit obligations are as follows:

	Post retirement medical benefit	Settling-in-benefit	NALGO benevolent fund scheme	NALGO retirement welfare scheme	Super-annuation gift scheme	Gratuity (Funded)
<b>Opening defined benefit obligations as at April 01, 2015</b>	(72.41)	(5.98)	-	-	-	(293.76)
Current service cost	(5.65)	(5.37)	(3.94)	(13.13)	(6.92)	(28.46)
Interest Cost	-	(0.46)	-	-	-	(22.58)
<b>Remeasurement (gains)/losses</b>						
Actuarial (Gains)/losses arising from experience assumptions	13.33	8.61				(0.04)
Benefits paid	3.49	0.46				22.97
Others	-	-	-	-	-	23.85
<b>Closing defined benefit obligation as at March 31, 2016</b>	(61.24)	(2.74)	(3.94)	(13.13)	(6.92)	(298.02)
Current service cost	(4.32)	(0.44)	-	-	-	(30.58)
Interest Cost	-	(0.18)	(0.27)	(0.89)	(0.48)	(20.63)
<b>Remeasurement (gains)/losses</b>						
Actuarial (Gains)/losses arising from changes in financial assumptions	(1.12)	(0.11)	(0.12)	(0.56)	(0.39)	(15.08)
Actuarial (Gains)/losses arising from experience assumptions	(0.89)	0.64	(0.03)	(0.92)	(0.17)	23.28
Benefits paid	3.26	0.42	0.50	1.66	0.61	27.00
<b>Closing defined benefit obligation as at March 31, 2017</b>	(64.31)	(2.41)	(3.86)	(13.84)	(7.35)	(314.03)

Movements in the fair value of the plan assets are as follows:

	Gratuity (Funded)
<b>Opening fair value of plan assets as at April 01, 2015</b>	291.71
Interest income	23.33
<b>Remeasurement gains/(losses)</b>	
Return on plan assets (excluding amounts included in net interest income)	(3.87)
Contribution from the employer	2.05
Benefits paid	(22.97)
<b>Closing fair value of plan assets as at March 31, 2016</b>	298.23
Interest income	21.04
<b>Remeasurement gains/(losses)</b>	
Return on plan assets (excluding amounts included in net interest income)	9.35
Others (describe)	
Contribution from the employer	8.46
Benefits paid	(27.00)
<b>Closing fair value of plan assets as at March 31, 2017</b>	302.10



## Notes to the consolidated financial statements

Amount in Rs. Crores

The fair value of the plan assets at the end of the reporting period for each category, are as follows

	Fair value of plan assets as at		
	31-Mar-17	31-Mar-16	31-Mar-15
<b>Investments in Funds:</b>			
<b>I. Insurance Companies</b>	<b>302.10</b>	<b>290.25</b>	<b>291.71</b>
<b>Total</b>	<b>302.10</b>	<b>290.25</b>	<b>291.71</b>

### 33B. SENSITIVITY ANALYSIS OF DEFINED BENEFIT PLANS

Significant actuarial assumption for determination of defined benefit plan are discount rate, expected salary growth, attrition rate and mortality rate. The sensitivity analysis below have been based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period while holding all other assumptions constant.

#### Sensitivity Analysis

Particulars	Post retirement medical benefit		Settling-in-benefit		NALCO benevolent fund scheme	
	Increase by	Decrease by	Increase by	Decrease by	Increase by	Decrease by
<b>2015-16</b>						
<b>Impact on amount due to change in Discount rate (-/+0.5%)</b>	2.65	2.59	0.08	0.08	0.08	0.08
% Change compared to base due to sensitivity [+ /(-)%]	4.33%	4.23%	3.08%	2.91%	2.13%	2.04%
<b>Impact on amount due to change in Salary growth (+/-0.5%)</b>	1.06	1.24	0.00	0.00	-	0.00
% Change compared to base due to sensitivity [+ /(-)%]	1.72%	2.03%	0.00%	0.00%	0.00%	0.00%
<b>Impact on amount due to change in Attrition rate (+/-0.5%)</b>	0.18	0.18	-	-	-	0.00
% Change compared to base due to sensitivity [+ /(-)%]	0.29%	0.29%	0.08%	0.08%	0.07%	0.07%
<b>Impact on amount due to change in Mortality rate (-/+ 10%)</b>	0.14	0.14	0.01	0.01	-	-
% Change compared to base due to sensitivity [+ /(-)%]	0.22%	0.22%	0.51%	0.51%	0.03%	0.03%
Particulars	NALCO retirement welfare scheme		Superannuation gift scheme		Gratuity (Funded)	
	Increase by	Decrease by	Increase by	Decrease by	Increase by	Decrease by
<b>2015-16</b>						
<b>Impact on amount due to change in Discount rate (-/+0.5%)</b>	0.38	0.36	0.26	0.25	10.18	9.60
% Change compared to base due to sensitivity [+ /(-)%]	2.87%	2.74%	3.83%	3.60%	3.42%	3.22%
<b>Impact on amount due to change in Salary growth (+/-0.5%)</b>	-	-	-	-	1.24	1.40
% Change compared to base due to sensitivity [+ /(-)%]	0.00%	0.00%	0.00%	0.00%	0.42%	0.47%
<b>Impact on amount due to change in Attrition rate (+/-0.5%)</b>	0.01	0.01	-	-	0.35	0.35
% Change compared to base due to sensitivity [+ /(-)%]	0.05%	0.05%	0.06%	0.06%	0.12%	0.12%
<b>Impact on amount due to change in Mortality rate (-/+ 10%)</b>	-	-	-	-	2.11	2.11
% Change compared to base due to sensitivity [+ /(-)%]	0.02%	0.02%	0.03%	0.03%	0.71%	0.71%

## Notes to the consolidated financial statements

## 33B. SENSITIVITY ANALYSIS OF DEFINED BENEFIT PLANS

Particulars	Post retirement medical benefit		Settling-in-benefit		NALCO benevolent fund scheme	
	Increase by	Decrease by	Increase by	Decrease by	Increase by	Decrease by
<b>2016-17</b>						
<b>Impact on amount due to change in Discount rate (-/+0.5%)</b>	2.95	2.77	0.08	0.07	0.08	0.08
% Change compared to base due to sensitivity [+ /(-)%]	4.58%	4.31%	3.19%	3.02%	2.14%	2.07%
<b>Impact on amount due to change in Salary growth (+/-0.5%)</b>	1.43	1.12	0.00	0.00	0.00	0.00
% Change compared to base due to sensitivity [+ /(-)%]	2.23%	1.74%	0.00%	0.00%	0.00%	0.00%
<b>Impact on amount due to change in Attrition rate (+/-0.5%)</b>	0.20	0.20	-	-	-	-
% Change compared to base due to sensitivity [+ /(-)%]	0.31%	0.31%	0.06%	0.06%	0.07%	0.07%
<b>Impact on amount due to change in Mortality rate (-/+ 10%)</b>	0.14	0.14	0.01	0.01	-	-
% Change compared to base due to sensitivity [+ /(-)%]	0.21%	0.21%	0.51%	0.51%	0.03%	0.03%
Particulars	NALCO retirement welfare scheme		Superannuation gift scheme		Gratuity (Funded)	
	Increase by	Decrease by	Increase by	Decrease by	Increase by	Decrease by
<b>2016-17</b>						
<b>Impact on amount due to change in Discount rate (-/+0.5%)</b>	0.40	0.38	0.28	0.27	10.70	10.07
% Change compared to base due to sensitivity [+ /(-)%]	2.86%	2.71%	3.82%	3.62%	3.41%	3.21%
<b>Impact on amount due to change in Salary growth (+/-0.5%)</b>	-	-	-	-	1.35	1.52
% Change compared to base due to sensitivity [+ /(-)%]	0.00%	0.00%	0.00%	0.00%	0.43%	0.48%
<b>Impact on amount due to change in Attrition rate (+/-0.5%)</b>	0.01	0.01	-	-	0.34	0.34
% Change compared to base due to sensitivity [+ /(-)%]	0.04%	0.04%	0.05%	0.05%	0.11%	0.11%
<b>Impact on amount due to change in Mortality rate (-/+ 10%)</b>	-	-	-	-	2.11	2.11
% Change compared to base due to sensitivity [+ /(-)%]	0.03%	0.03%	0.03%	0.03%	0.67%	0.67%

The sensitivity analysis presented above may not be representative of the actual change in the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Furthermore, in presenting the above sensitivity analysis, the present value of defined benefit obligation has been calculated using projected unit credit method at the end of the reporting period, which is same as that applied in calculating the defined benefit obligation liability recognised in the balance sheet.

There is no change in the methods and assumptions used in preparing the sensitivity analysis from prior years.

## 34. FINANCE COSTS

	Year ended 31.03.2017	Year ended 31.03.2016
(a) Interest on dismantling and constructive obligations	2.31	2.06
(b) Other finance cost	0.38	1.21
<b>Total finance costs</b>	<b>2.69</b>	<b>3.27</b>



## Notes to the consolidated financial statements

Amount in Rs. Crores

### 35. DEPRECIATION AND AMORTISATION EXPENSE

	Year ended 31.03.2017	Year ended 31.03.2016
Depreciation of property, plant and equipment	467.36	413.47
Amortisation of intangible assets	13.00	12.65
<b>Total depreciation and amortisation</b>	<b>480.36</b>	<b>426.12</b>

### 36. EXCISE DUTY

	Year ended 31.03.2017	Year ended 31.03.2016
(a) Excise duty on removal of goods	491.85	452.64
(b) Excise duty on closing stock (accretion/ depletion)	15.13	(0.37)
<b>Total excise duty</b>	<b>506.98</b>	<b>452.27</b>

### 37. OTHER EXPENSES

	Year ended 31.03.2017	Year ended 31.03.2016
(a) Stores and spares consumed	318.57	335.44
(b) Repair and maintenance to		
(1) Buildings	30.49	44.98
(2) Machinery	138.71	127.84
(3) Others	20.16	18.83
(c) Other Manufacturing Expenses		
(1) Water charges	24.18	24.18
(2) Royalty	108.53	93.14
(3) Contribution to District Mineral Fund and National Mineral Exploration Trust	34.73	36.31
(4) Continuous Technical Assistance expenses	8.52	9.77
(5) Others	54.47	53.80
(d) Freight and handling charges		
(1) Incoming materials (Alumina)	102.16	97.31
(2) Outgoing materials	163.97	155.51
(e) Auditors remuneration and out-of-pocket expenses		
(i) As Auditors	0.26	0.20
(ii) For Taxation matters	0.05	0.04
(iii) For Other services	0.21	0.16
(iv) For reimbursement of expenses	0.02	0.02
(f) Payment to Cost Auditors	0.03	0.02
(g) Security and fire fighting expenses	104.57	90.31
(h) Corporate social responsibility expenses [refer note 37.1]	29.69	27.17
(i) Administrative and general expenses	97.94	74.55
(j) Renewable purchase obligation	63.02	30.35
(k) Provision towards disputed Government dues and others	178.12	140.22
(l) Selling and distribution expenses	27.83	26.82
(m) Write off of Inventories, Claims etc	27.96	9.61
(n) Bad and doubtful Provisions	56.93	63.01
(o) Others	37.10	39.55
<b>Total other expenses</b>	<b>1,628.22</b>	<b>1,499.14</b>

## Notes to the consolidated financial statements

## 38. EXCEPTIONAL ITEMS AND EXTRAORDINARY ITEMS

	Year ended 31.03.2017	Year ended 31.03.2016
Exceptional items		
Other (income)/ expenses	40.15	(53.45)
<b>Total exceptional items</b>	<b>40.15</b>	<b>(53.45)</b>

## Note:

38.1 Taking a cue from the Special Leave Petitions (SLPs) filed by other major assesseees of Odisha, challenging the judgment of Hon'ble High Court of Odisha regarding levy of entry tax on imported goods, the Parent Company also filed SLP before Hon'ble Supreme Court of India which was admitted. After examining the decision of various High Courts, the Supreme Court finally referred the matter to bench of 9 judges.

The nine judge bench of Hon'ble Supreme Court in their judgement dated 11.11.2016 in the matter of Constitutional validity of entry tax and imposition of entry tax on imported goods have decided the constitutional validity of entry tax in favour of the State. But the Apex Court left open the matter on levy of entry tax on imported goods to be decided by the divisional bench of Supreme Court. However, on perusal of findings of individual judges given in the judgment dated 11.11.2016, prima facie it appears in favour of the State. In consultation with legal experts, the Parent Company has recognized Rs.37.90 crore towards liability for entry tax on imported goods during the year based on the demand for Entry Tax on imports made by State Govt up to 31.3.2017. The demand for entry tax pertaining to earlier years has been recognized in the current year based on court judgement, hence considered as exceptional item. Liability on account of Entry tax on import for current year amounting to Rs.3.97 crore has been charged to profit or loss for the current year. Against the total liability for entry tax on import for Rs.41.88 crore, an amount of Rs26.33 crore has already been paid to State Govt. Under protest Besides, on account of arbitration settlement arising out of dispute between the Parent Company and M/s KC&CC, an amount of Rs.2.25 crore has been provided which has been considered as an exceptional item.

38.2 Exceptional item for the previous year relates to an amount of Rs. 53.45 crore (USD 8.05 million) received from M/s. Peak Chemicals towards final settlement of risk and cost claim on them due to non-supply of caustic soda.

## 39. INCOME TAXES

## 39.1 Income tax recognised in profit or loss

	Year ended 31.03.2017	Year ended 31.03.2016
<b>Current tax</b>		
In respect of the current year	219.57	375.60
In respect of the prior years	(0.05)	(8.67)
	<b>219.52</b>	<b>366.93</b>
<b>Deferred tax</b>		
In respect of the current year	97.81	34.61
In respect of the prior years	(3.68)	-
Others (MAT credit entitlement)	(17.46)	-
	<b>76.67</b>	<b>34.61</b>
<b>Total income tax expense recognised in the current year</b>	<b>296.19</b>	<b>401.54</b>
<b>The income tax expense for the year can be reconciled to the accounting profit as follows:</b>		
Profit before tax	963.91	1,188.70
	333.59	411.39
Income tax expense thereon @ 34.608% :		
Tax effect of -		
i) income exempt from taxation	(12.39)	(1.80)
ii) disallowable expenses	10.24	9.68
iii) expenses allowable in excess of expenditure incurred	(0.97)	(0.63)
iv) effect of concessions (research and development and other allowances)	(21.94)	(4.65)
v) temporary differences	(9.40)	(5.52)
vi) Others (interest and previous year taxes)	(3.22)	(6.91)
<b>Income tax expense recognised in profit or loss</b>	<b>295.91</b>	<b>401.56</b>



## Notes to the consolidated financial statements

Amount in Rs. Crores

		Year ended 31.03.2017	Year ended 31.03.2016
<b>39.2</b>	<b>Income tax recognised directly in equity</b>		
	<b>Current tax</b>		
	Share buy-back costs	(3.06)	
	<b>Income tax recognised directly in equity</b>	<b>(3.06)</b>	-
<b>39.3</b>	<b>Income tax recognised in other comprehensive income</b>		
		Year ended 31.03.2017	Year ended 31.03.2016
	<b>Deferred tax</b>		
	Arising on Income and expenses recognised in other comprehensive income		
	- Remeasurements of defined benefit obligation	4.80	14.21
	<b>Total income tax recognised in other comprehensive income</b>	<b>4.80</b>	<b>14.21</b>
	Bifurcation of the income tax recognised in other comprehensive income into:		
	Items that will be reclassified to profit or loss	-	-
	Items that will not be reclassified to profit or loss	4.80	14.21

**Note:**

During the year, current tax has been provided based on Minimum Alternate Tax (MAT) as per book profit computed for the year. Consequently MAT credit entitlement has been adjusted with deferred tax.

#### 40. SEGMENT INFORMATION

##### 40.1 Products from which reportable segments derive their revenues

Information reported to the chief operating decision maker (CODM) for the purpose of resource allocation and assessment of segment performance focuses on the types of goods delivered. The directors of the Parent Company have chosen to organise the Group around differences in products. No reporting segment have been aggregated in arriving at the reportable segments in the Group. Specifically, the Group's reportable segment under Ind AS 108- Operating Segments are as follows:

- i) Chemical segment
- ii) Aluminium segment

The Group has considered Chemicals and Aluminium as the two primary operating business segments. Chemicals include Calcined Alumina, Alumina Hydrate and other related products. Aluminium includes aluminium ingots, wire rods, billets, strips, rolled and other related products. Bauxite produced for captive consumption for production of alumina is included under chemicals and power generated for captive consumption for production of Aluminium is included under Aluminium segment. Wind Power Plant commissioned primarily to harness the potential renewable energy sources is included in the unallocated Common segment.

##### 40.2 Segment revenues and results

The following is an analysis of the Group's revenue and results from operations by reportable segment.

Operating Segments	Segment revenue	
	Year ended 31.03.2017	Year ended 31.03.2016
Chemical segment	4046.21	3684.98
Aluminium segment	5537.42	5016.60
Unallocated	108.64	80.65
<b>Total for operations</b>	<b>9,692.27</b>	<b>8,782.23</b>
Less: Intersegment revenue	1,642.25	1,513.00
<b>Revenue from operations</b>	<b>8,050.02</b>	<b>7,269.23</b>
Operating Segments	Segment results	
	Year ended 31.03.2017	Year ended 31.03.2016
Chemical segment	976.92	907.42
Aluminium segment	(224.78)	(175.28)
<b>Segment result before exceptional items, interest and tax</b>	<b>752.14</b>	<b>732.14</b>
Exceptional Income/(Expenses)	(40.15)	53.45
Interest & financing charges	2.69	3.27
Interest and dividend income	383.03	548.20
Other unallocated income net of unallocated expenses	(128.42)	(141.82)
<b>Profit before tax</b>	<b>963.91</b>	<b>1,188.70</b>



## Notes to the consolidated financial statements

Amount in Rs. Crores

## 40.3 Segment assets and liabilities

	Segment Assets		Segment Liabilities	
	As at 31.03.2017	As at 31.03.2016	As at 31.03.2017	As at 31.03.2016
Chemical segment	3,643.05	3,703.89	780.06	596.36
Aluminium segment	5,165.16	5,177.83	1,902.94	1,346.94
<b>Total segment assets and liabilities</b>	<b>8,808.21</b>	<b>8,881.72</b>	<b>2,683.00</b>	<b>1,943.30</b>
Unallocated	5,692.80	7,828.64	367.28	462.07
<b>Total assets and Liabilities</b>	<b>14,501.01</b>	<b>16,710.36</b>	<b>3,050.28</b>	<b>2,405.37</b>

## 40.4 Other segment information

	Depreciation and amortisation		Additions to non-current assets	
	Year ended 31.03.2017	Year ended 31.03.2016	Year ended 31.03.2017	Year ended 31.03.2016
Chemical segment	165.49	173.01	(3.10)	(24.58)
Aluminium segment	232.17	270.62	(67.90)	(147.68)
Unallocated	28.45	36.72	(450.48)	1,264.82
<b>Total for operations</b>	<b>426.12</b>	<b>480.36</b>	<b>(521.49)</b>	<b>1,092.56</b>

## 40.5 Revenue from major products

The following is an analysis of the Group's revenue from continuing operations from its major products and services

	Year ended 31.03.2017	Year ended 31.03.2016
Chemical segment (Hydrate and Alumina)	2,584.25	2,318.19
Aluminium segment (Aluminium)	5,272.19	4,782.84
<b>Total</b>	<b>7,856.44</b>	<b>7,101.03</b>

## 40.6 Geographical information

The Group operates mainly in principal geographical areas-India (country of domicile) and Outside India

	Revenue from external customers		Non-current assets		
	Year ended 31.03.2017	Year ended 31.03.2016	As at 31.03.2017	As at 31-Mar-16	As at 01-Apr-15
India	4,231.45	3,854.16	8,845.22	9,366.71	8,274.15
Outside India	3,624.99	3,246.87	-	-	-
<b>Total</b>	<b>7,856.44</b>	<b>7,101.03</b>	<b>8,845.22</b>	<b>9,366.71</b>	<b>8,274.15</b>

## Note:

- Inter-segment transfer of Calcined Alumina is considered at average sales realization from export sales during the period less freight from Refinery to Port at Vizag plus export incentive. Transfer of power from Aluminium segment to Chemical segment is considered at the annual / periodic average purchase price of power from State Grid at Alumina Refinery.
- Revenue and expenses have been identified to segments on the basis of their relationship to the operating activities. Revenue, expenses, assets and liabilities, which relate to the enterprise as a whole and are not allocable on a reasonable basis, have been included under Unallocated Common segment.

Notes to the consolidated financial statements

41. EARNINGS PER SHARE

	Year ended 31.03.2017	Year ended 31.03.2016
	Rs. per share	Rs. per share
<b>41.1 Basic Earnings per share (Rs.)</b>		
From total operations	2.97	3.05
<b>Total Basic earnings per share</b>	<b>2.97</b>	<b>3.05</b>

41.2 Basic Earnings per Share

The Earnings and weighted average number of equity shares used in the calculation of basic earnings per share are as follows

	Amount in Rs. Crores	
	Year ended 31.03.2017	Year ended 31.03.2016
Profit for the year attributable to Owners of the Company	667.72	787.16
<b>Earnings used in the calculation of basic earnings per share</b>	<b>667.72</b>	<b>787.16</b>
	As at 31.03.2017	As at 31.03.2016
<b>Weighted average number of equity shares used in calculation of basic earnings per share (in crore)</b>	<b>224.71</b>	<b>257.72</b>

42. FINANCIAL INSTRUMENTS

42.1 Categories of financial instruments

	As at 31.03.2017	As at 31.03.2016	As at 01.04.2015
<b>Financial Assets</b>			
Measured at fair value through profit or loss (FVTPL)			
(a) Mandatorily measured:			
(i) Investments in mutual funds	1221.13	1009.28	1021.06
(ii) Forward contract on foreign currency	Nil	0.92	Nil
Measured at Amortised cost			
(a) Cash and bank balances	24.83	654.42	3.68
(b) Other financial assets at amortised cost	2,770.12	4,986.58	5,227.74
	<b>4,016.08</b>	<b>6,651.20</b>	<b>6,252.48</b>
<b>Financial Liabilities</b>			
Measured at Amortised cost	1,386.62	1,059.79	1,064.73

42.2 Financial risk management objectives

In the course of its business, the Parent Company is exposed primarily to fluctuations in foreign currency exchange rates, interest rates, equity prices, liquidity and credit risk, which may adversely impact the fair value of its financial instruments. The Parent Company has a risk management policy which not only covers the foreign exchange risks but also other risks associated with the financial assets and liabilities such as interest rate risks and credit risks.

The objectives of the Parent Company's risk management policy are, inter-alia, to ensure the following:

- i) Ensure sustainable business growth with financial stability;
- ii) Provide a strategic framework for Nalco's risk management process in alignment with the strategic objectives including the risk management organisation structure;
- iii) Ensure that all the material risk exposures of Nalco, both on and off-balance sheet are identified, assessed, quantified, appropriately mitigated and managed and
- iv) Ensure Nalco's compliance with appropriate regulations, wherever applicable, through the voluntary adoption of international best practices, as far as may be appropriate to the nature, size and complexity of the operations.



## Notes to the consolidated financial statements

The risk management policy is approved by the board of directors. The Internal Control team would be responsible to evaluate the efficacy and implementation of the risk management system. It would present its findings to the Audit Committee every quarter. The Board is responsible for the Parent Company's overall process of risk management. The Board shall, therefore, approve the compliance and risk management policy and any amendments thereto, and ensure its smooth implementation.

**42.3 Market risk**

Market risk is the risk of any loss in future earnings (spreads), in realizable fair values (economic value) or in future cash flows that may result from a change in the price of a financial instrument. The value of a financial instrument may change as a result of changes in the interest rates, foreign currency exchange rates, liquidity and other market changes. The Parent Company may also be subjected to liquidity risk arising out of mismatches in the cash flows arising out of sales proceeds and funds raised and loan repayments/prepayments. Future specific market movements cannot be normally predicted with reasonable accuracy.

**42.4 Foreign currency risk management**

Foreign currency risk emanates from the effect of exchange rate fluctuations on foreign currency transactions. The overall objective of the currency risk management is to protect the Parent Company's income arising from changes in foreign exchange rates. The policy of the Parent Company is to avoid any form of currency speculation. Hedging of currency exposures shall be effected either naturally through offsetting or matching assets and liabilities of similar currency, or in the absence thereof, through the use of approved derivative instruments transacted with reputable institutions. The Currency risk is measured in terms of the open positions in respective currencies vis-à-vis The Parent Company's operating currency viz. INR. A currency gap statement shall be prepared to find the gap due to currency mismatch.

The fluctuation in foreign currency exchange rates may have impact on the income statement and equity, where any transaction references more than one currency or where assets/liabilities are denominated in a currency other than the functional currency of the respective consolidated entities.

The Parent Company undertakes transactions denominated in foreign currency; consequently, exposures to exchange rate fluctuations arise. Exchange rate are managed within approved policy parameters utilising forward foreign exchange contracts.

The carrying amounts of the Company's foreign currency denominated monetary assets and monetary liabilities at the end of the reporting period are as follows:-

	Liabilities as at			Assets as at		
	31-Mar-17	31-Mar-16	1-Apr-15	31-Mar-17	31-Mar-16	1-Apr-15
USD	1.96	2	2.02	98.57	199.17	0
EURO	2.57	4.94	12.04	-	-	0
Others	-	-	-	-	-	1.49

**42.4.1 Foreign currency sensitivity analysis**

The Parent Company evaluates the impact of foreign exchange rate fluctuations by assessing its exposure to exchange rate risks. It hedges a part of these risks by using derivative financial instruments in accordance with its risk management policies. The foreign exchange rate sensitivity is calculated for each currency by aggregation of the net foreign exchange rate exposure of a currency and a simultaneous parallel foreign exchange rates shift in the foreign exchange rates of each currency by 10%.

The following analysis is based on the gross exposure as of the relevant balance sheet dates, which could affect the income statement. There is no exposure to the income statement on account of translation of financial statements of consolidated foreign entities.

The following table sets forth information relating to foreign currency exposure as at March 31, 2017, March 31, 2016 and April 01, 2015:

	USD impact		EURO impact		JPY impact	
	Year ended 31.03.2017	Year ended 31.03.2016	Year ended 31.03.2017	Year ended 31.03.2016	Year ended 31.03.2017	Year ended 31.03.2016
Impact on profit or loss for the year	9.70	19.7	0.26	0.49	0.0	0.0

**42.5 Other price risks****42.5.1 Equity price sensitivity analysis**

The Group is not exposed to equity price risk arising from equity instruments as all the equity investments are held for strategic rather than trading purposes.



## Notes to the consolidated financial statements

### 42.6 Credit risk management

Credit risk is the risk of financial loss arising from counterparty failure to repay or service debt according to the contractual terms or obligations. Credit risk encompasses both the direct risk of default and the risk of deterioration of creditworthiness as well as concentration risks. There is no significant credit exposure as advance collection from customer is made.

Financial instruments that are subject to concentrations of credit risk, principally consist of investments classified as loans and receivables, trade receivables, loans and advances and derivative financial instruments. None of the financial instruments of the Parent Company result in material concentrations of credit risks.

### 42.7 Liquidity risk management

Liquidity risk refers to the risk that the Parent Company cannot meet its financial obligations. The objective of liquidity risk management is to maintain sufficient liquidity and ensure that funds are available for use as per requirements.

Company has established an appropriate liquidity risk management framework for the management of the Parent Company's short-term, medium-term and long-term funding liquidity management requirements. The Parent Company manages liquidity risk by maintaining adequate reserves and banking facilities by continuously monitoring forecast and actual cashflows and by matching the maturity profiles of financial assets and financial liabilities.

## 43. RELATED PARTY DISCLOSURES

### 43.1 Related parties

#### A. Key Managerial Personnel:

##### I) Whole time Directors

(a) Dr T K Chand	Chairman Cum Managing Director
(b) Shri K C Samal	Director (Finance)
(c) Shri V Balasubramanyam	Director (Production)
(d) Shri B K Thakur	Director (HR) w.e.f 04.07.2016
(e) Shri S K Roy	Director (Proj & Tech) w.e.f 03.02.2017
(f) Shri S.C. Padhy	Director (Human Resources) up to 30.6.2016
(g) Shri N.R. Mohanty	Director (Project & Technical) up to 31.1.2017
(h) Ms Soma Mondal	Director (Commercial) up to 28.2.2017

##### Others

Shri K N Ravindra	Executive Director-Company Secretary
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##### II) Part time Official Directors: (Nominee of Govt. of India):

(a) Shri Subhash Chandra ( w.e.f 20.10.2016)
(b) Dr N K Singh, IFS ( w.e.f 15.3.2017)
(c) Shri R Sridharan, IAS ( up to 2.1.2017)
(d) Shri N B Dhal, IAS ( up to 19.10.2016)

##### III) Part time non official (Independent) Directors:

(a) Shri Dipankar Mahanta
(b) Shri S Sankararaman
(c) Shri Pravat Keshari Nayak
(d) Prof.Damodar Acharya
(e) Shri Maheswar Sahu
(f) Ms.Kiran Ghai Sinha (w.e.f. 03.02.2017)

#### B. Post Employment Benefit Plan

(a) Nalco Employees Provident Fund Trust
(b) Nalco Employees Group Gratuity Trust

#### C. Entity controlled by a person identified in (A) as KMP

(a) Nalco Foundation
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#### D. Government that has control or significance influence:

(a) Govt. of India
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## Notes to the consolidated financial statements

### E. Entities on which Govt of India has control or significant influence (CPSEs)

The Group has major business transactions during the year with the following CPSEs.

- i) **Purchase of Goods and Services**
- Indian Oil Corporation Ltd.
  - Bharat Petroleum Corporation Ltd.
  - Hindustan petroleum Corporation Ltd.
  - Mahandai Coal Fields Ltd.
  - Northern Coalfields Ltd.
  - Singareni Coliaries Ltd.
  - Western Coalfields Ltd.
  - Numaligarh Refinery Ltd.
  - Bharat Earthmovers Ltd.
  - Bharat Heavy Electrical Ltd.
  - Mineral Exploration Corporation Ltd.
  - Balmer Lawrie & Co.
  - East Coast Railways
  - Vizag Port Trust
- ii) **Sale of Goods**
- National Small Industries Corporation (NSIC)
  - Steel Authority of India Ltd.
  - Rashtriya Ispat Nigam Ltd.
  - National Thermal Power Corporation Ltd.

### 43.2 Related Party Transactions

#### I. Key Managerial Personnel

Amount in Rs. Crores

##### Remuneration to Key Managerial Personnel

Particulars	Year ended 31.03.2017	Year ended 31.03.2016
Salaries	3.04	2.78
Contribution to Provident Fund	0.20	0.17
Medical Benefits	0.01	0.02
Other Benefits	0.03	0.03
<b>Total</b>	<b>3.28</b>	<b>3.00</b>

##### Loans / advances due from Key Managerial Personnel

Particulars	As at 31.03.2017	As at 31.03.2016
Outstanding at the end of the year	0.04	0.06
Maximum amount due at any time during the year	0.09	0.10

#### II. Post Employment Benefit Plan

Transactions during the year

Name of Trust	Nature of Transaction	Year ended 31.03.2017	Year ended 31.03.2016
NEPF Trust	PF-Contribution	95.79	92.19
NEGG Trust	Funding of shortfall	8.46	2.05



## Notes to the consolidated financial statements

Amount in Rs. Crores

Outstanding balance at the end of the year			
Name of Trust	Nature of Transaction	As at 31.03.2017	As at 31.03.2016
NEPF Trust	PF-Contribution payable	21.20	23.03
NEGG Trust	Funding of shortfall payable	3.02	2.30
<b>III. Nalco Foundation Particulars</b>		<b>Year ended 31.03.2017</b>	<b>Year ended 31.03.2016</b>
Contribution to CSR Trust		7.00	5.00
<b>IV. Govt. Of India : Transaction during the year Particulars</b>		<b>Year ended 31.03.2017</b>	<b>Year ended 31.03.2016</b>
Buyback of shares		2835.00	-
Final Dividend-2015-16		108.11	-
Interim Dividend-2016-17		403.62	-
Final Dividend-2014-15		-	104.29
Interim Dividend-2015-16		-	260.73
<b>V. CPSEs/ Govt Undertakings – Transaction during the year Particulars</b>		<b>Year ended 31.03.2017</b>	<b>Year ended 31.03.2016</b>
Purchase of goods and services from CPSEs/ Govt undertakings		1392.11	1283.68
Sale of goods to CPSEs and Govt undertakings		1016.21	892.66
<b>Outstanding Balance as on the year ending day Particulars</b>		<b>As at 31.03.2017</b>	<b>As at 31.03.2016</b>
Payable for purchase of goods and services from CPSEs/ Govt. undertakings		92.3	74.19
Receivable for sale of goods to CPSEs and Govt undertakings		0.41	5.31

#### 44. OFFER FOR SALE (OFS) ( Events occurring after Balance sheet date)

The Govt. of India sold 14,24,55,941 shares to non-retail investors and 3,56,13,986 shares to retail investors on 19th April, 2017 and 20th April, 2017 respectively through stock exchange mechanism comprising in total, 9.2125% of the paidup capital of the Parent Company. Post OFS, the total shares held by the President of India have come down from 74.58% to 65.36% of the total paid-up capital of Rs. 966.47 crores.

#### 45. REGROUPING OF PREVIOUS YEAR'S FIGURES

Previous year's figures have been regrouped/rearranged wherever necessary to make them comparable



## Notes to the consolidated financial statements

Amount in Rs. Crores

## 46.1 CORRECTION OF ERRORS IDENTIFIED DURING THE YEAR ENDED MARCH 31, 2017

## 46.1.1. Adjustments for error corrections in the balance sheet as at March 31, 2016 and April 01, 2015

Particulars	As at 31.03.2016			As at 31.03.2015		
	Previous GAAP (as reported)	Adjustment for prior period errors	Revised Previous GAAP Balances	Previous GAAP (as reported)	Adjustment for prior period errors	Revised Previous GAAP Balances
<b>I. Non-current assets</b>						
(i) Property, plant and equipment	6,328.90	1.01	6,329.91	6,509.21	(1.22)	6,507.99
(ii) Capital work-in-progress	662.14	1.39	663.53	550.01	(0.42)	549.59
(iii) Other intangible assets	138.61	-	138.61	136.21	-	136.21
(iv) Intangible assets under development	-	-	-	-	-	-
(v) Financial assets:-						
I. Investment:-						
(a) Investments in associates	-	-	-	-	-	-
(b) Investments in joint ventures	-	-	-	-	-	-
(c) Other Investments	810.03	-	810.03	0.03	-	0.03
II. Trade receivables	-	-	-	-	-	-
III. Loans	1,347.55	-	1,347.55	1,221.85	-	1,221.85
IV. Other financial assets	-	-	-	-	-	-
(vi) Other non-current assets	49.48	-	49.48	47.45	-	47.45
<b>Total non-current assets</b>	<b>9,336.71</b>	<b>2.40</b>	<b>9,339.11</b>	<b>8,464.76</b>	<b>(1.64)</b>	<b>8,463.12</b>
<b>II. Current assets</b>						
(i) Inventories	1,126.97	-	1,126.97	1,165.56	-	1,165.56
(ii) Financial assets:-						
a. Other investments	66.00	-	66.00	950.00	-	950.00
b. Trade receivables	235.21	-	235.21	120.82	-	120.82
c. Cash and cash equivalents	4,944.11	-	4,944.11	4,628.79	-	4,628.79
d. Bank balance other than cash and cash equivalents	-	-	-	-	-	-
e. Loans	586.68	-	586.68	607.54	-	607.54
f. Other financial assets	-	-	-	-	-	-
(iii) Other current assets	233.68	(1.58)	232.10	240.33	1.30	241.63
<b>Total current assets</b>	<b>7,192.65</b>	<b>(1.58)</b>	<b>7,191.07</b>	<b>7,713.04</b>	<b>1.30</b>	<b>7,714.34</b>
<b>Total assets</b>	<b>16,529.36</b>	<b>0.82</b>	<b>16,530.18</b>	<b>16,177.80</b>	<b>(0.34)</b>	<b>16,177.46</b>
<b>Particulars</b>	<b>Previous GAAP</b>	<b>Effect of Transition to Ind AS</b>	<b>As per Ind AS balance sheet</b>	<b>Previous GAAP</b>	<b>Effect of Transition to Ind AS</b>	<b>As per Ind AS balance sheet</b>
<b>A. Equity</b>						
(i) Share capital	1,288.62	-	1,288.62	1,288.62	-	1,288.62
(ii) Reserve and surplus	11,627.88	1.90	11,629.78	11,508.80	(54.15)	11,454.65
<b>Total equity (shareholders funds under previous GAAP)</b>	<b>12,916.50</b>	<b>1.90</b>	<b>12,918.40</b>	<b>12,797.42</b>	<b>(54.15)</b>	<b>12,743.27</b>



## Notes to the consolidated financial statements

Amount in Rs. Crores

Particulars		Previous GAAP	Effect of Transition to Ind AS	As per Ind AS balance sheet	Previous GAAP	Effect of Transition to Ind AS	As per Ind AS balance sheet
<b>B.</b>	<b>Non-current liabilities</b>						-
(i)	Financial liabilities						-
a.	Trade payables	-	-	-	-	-	-
b.	Other financial liabilities	-	-	-	-	-	-
(ii)	Provisions	223.72	-	223.72	242.76	-	242.76
(iii)	Deferred tax liabilities	1,110.09	-	1,110.09	1,105.27	(12.85)	1,092.42
(iv)	Other non-current liabilities	69.47	-	69.47	65.30	-	65.30
	<b>Total non-current liabilities</b>	<b>1,403.28</b>	<b>-</b>	<b>1,403.28</b>	<b>1,413.33</b>	<b>(12.85)</b>	<b>1,400.48</b>
<b>C.</b>	<b>Current liabilities</b>						
(j)	Financial liabilities						
a.	Borrowings	-	-	-	-	-	-
b.	Trade payable	581.38	(1.08)	580.30	440.18	1.08	441.26
c.	Other financial liabilities	-	-	-	-	-	-
(ii)	Provisions	277.43	-	277.43	186.22	65.58	251.80
(iii)	Other current liabilities	1,350.77	-	1,350.77	1,340.65	-	1,340.65
	<b>Total current liabilities</b>	<b>2,209.58</b>	<b>(1.08)</b>	<b>2,208.50</b>	<b>1,967.05</b>	<b>66.66</b>	<b>2,033.71</b>
	<b>Total liabilities</b>	<b>3,612.86</b>	<b>(1.08)</b>	<b>3,611.78</b>	<b>3,380.38</b>	<b>53.81</b>	<b>3,434.19</b>
	<b>Total equity and liabilities</b>	<b>16,529.36</b>	<b>0.82</b>	<b>16,530.18</b>	<b>16,177.80</b>	<b>(0.34)</b>	<b>16,177.46</b>

### 46.1.2 Adjustments for error corrections in the statement of profit and loss for the year ended March 31, 2016

Particulars	For the year ended 31.03.2016		
	Previous GAAP	Effect of Transition to Ind AS	Revised previous GAAP
Revenue from operations	6,816.00	-	6,816.00
Other income	536.64	(1.23)	535.41
<b>Total income (A)</b>	<b>7,352.64</b>	<b>(1.23)</b>	<b>7,351.41</b>
Raw materials consumed	1,104.40	-	1,104.40
Power and fuel consumed	1,864.61	-	1,864.61
Changes in stock of finished goods and work-in-progress	(8.99)	-	(8.99)
Employee benefits expense	1,361.37	-	1,361.37
Finance costs	1.21	-	1.21
Depreciation and amortisation expenses	424.09	(0.53)	423.56
Excise duty	-	-	-
Other expenses	1,556.60	(2.18)	1,554.42
<b>Total expenses (B)</b>	<b>6,303.29</b>	<b>(2.71)</b>	<b>6,300.58</b>
<b>Profit/(loss) before exceptional items and tax (E=A-B+C+D)</b>	<b>1,049.35</b>	<b>1.48</b>	<b>1,050.83</b>
Exceptional Items (F)	(53.45)	-	(53.45)
<b>Profit/(loss) before tax (G=E-F)</b>	<b>1,102.80</b>	<b>1.48</b>	<b>1,104.28</b>
Tax expense			
(1) Current tax			
a. Current tax	375.62	0.02	375.64
b. Current tax relating to previous years	4.82	-	4.82
(2) Deferred tax	(8.67)	-	(8.67)
<b>Total Tax (H)</b>	<b>371.77</b>	<b>0.02</b>	<b>371.79</b>
<b>Profit for the year (G-H)</b>	<b>731.03</b>	<b>1.46</b>	<b>732.49</b>

## Notes to the consolidated financial statements

## 46.2.1 Effect of Ind AS adoption on the balance sheet as at March 31, 2016 and April 1, 2015

Particulars	As at 31.03.2016			As at 31.03.2015		
	Revised Previous GAAP Balances	Effect of Transition to Ind AS	As per Ind AS balance sheet	Revised Previous GAAP Balances	Effect of Transition to Ind AS	As per Ind AS balance sheet
<b>I. Non-current assets</b>						
(i) Property, plant and equipment	6,329.91	127.16	6,457.07	6,507.99	80.66	6,588.65
(ii) Capital work-in-progress	663.53	(7.23)	656.30	549.59	(3.47)	546.12
(iii) Other intangible assets	138.61	-	138.61	136.21	-	136.21
(iv) Intangible assets under development	-	31.40	31.40	-	3.18	3.18
(v) Financial assets:-						
I. Investment:-						
(a) Investments in associates	-	0.01	0.01	-	0.01	0.01
(b) Investments in joint ventures	-	1.21	1.21	-	1.12	1.12
(c) Other Investments	810.03	133.28	943.31	1.04	(1.01)	0.03
II. Trade receivables	-	-	-	-	-	-
III. Loans	1,347.55	(1,240.22)	107.33	1,221.85	(1,114.50)	107.35
IV. Other financial assets	-	8.04	8.04	-	5.99	5.99
(vi) Other non-current assets	49.48	973.95	1,023.43	47.45	838.04	885.49
<b>Total non-current assets</b>	<b>9,339.11</b>	<b>27.60</b>	<b>9,366.71</b>	<b>8,464.13</b>	<b>(189.98)</b>	<b>8,274.15</b>
<b>II. Current assets</b>						
(i) Inventories	1,126.97	(71.96)	1,055.01	1,165.56	(62.20)	1,103.36
(ii) Financial assets:-						
a. Other investments	66.00	-	66.00	950.00	71.06	1,021.06
b. Trade receivables	235.21	-	235.21	120.82	-	120.82
c. Cash and cash equivalents	4,944.11	(4,289.69)	654.42	4,627.98	(4,624.30)	3.68
d. Bank balance other than cash and cash equivalents	-	4,448.73	4,448.73	-	4,797.30	4,797.30
e. Loans	586.68	(556.48)	30.20	607.54	(568.93)	38.61
f. Other financial assets	-	156.74	156.74	-	156.51	156.51
(iii) Current tax assets		102.92	102.92		127.77	127.77
(iv) Other current assets	232.10	362.32	594.42	241.63	366.83	608.46
<b>Total current assets</b>	<b>7,191.07</b>	<b>152.58</b>	<b>7,343.65</b>	<b>7,713.53</b>	<b>264.04</b>	<b>7,977.57</b>
<b>Total assets</b>	<b>16,530.18</b>	<b>180.18</b>	<b>16,710.36</b>	<b>16,177.66</b>	<b>74.06</b>	<b>16,251.72</b>
<b>Particulars</b>	<b>Revised Previous GAAP Balances</b>	<b>Effect of Transition to Ind AS</b>	<b>As per Ind AS balance sheet</b>	<b>Revised Previous GAAP Balances</b>	<b>Effect of Transition to Ind AS</b>	<b>As per Ind AS balance sheet</b>
<b>A. Equity</b>						
(i) Share capital	1,288.62	-	1,288.62	1,288.62	-	1,288.62
(ii) Reserve and surplus	11,629.78	276.52	11,906.30	11,454.65	180.46	11,635.11
<b>Total equity (shareholders funds under previous GAAP)</b>	<b>12,918.40</b>	<b>276.52</b>	<b>13,194.92</b>	<b>12,743.27</b>	<b>180.46</b>	<b>12,923.73</b>



Notes to the consolidated financial statements

Amount in Rs. Crores

Particulars	Revised Previous GAAP Balances	Effect of Transition to Ind AS	As per Ind AS balance sheet	Revised Previous GAAP Balances	Effect of Transition to Ind AS	As per Ind AS balance sheet
<b>B. Non-current liabilities</b>						
(i) Financial liabilities						
a. Trade payables	-	16.30	16.30	-	19.82	19.82
b. Other financial liabilities	-	1.58	1.58	-	3.07	3.07
(ii) Provisions	223.72	77.40	301.12	242.76	82.72	325.48
(iii) Deferred tax liabilities	1,110.09	54.02	1,164.11	1,092.42	22.87	1,115.29
(iv) Other non-current liabilities	69.47	(19.09)	50.38	65.30	(22.88)	42.42
<b>Total non-current liabilities</b>	<b>1,403.28</b>	<b>130.21</b>	<b>1,533.49</b>	<b>1,400.48</b>	<b>105.60</b>	<b>1,506.08</b>
<b>C. Current liabilities</b>						
(i) Financial liabilities						
a. Borrowings	-	-	-	-	-	-
b. Trade payable	580.30	59.26	639.56	441.26	125.31	566.57
c. Other financial liabilities	-	402.35	402.35	-	475.27	475.27
(ii) Provisions	277.43	(190.28)	87.15	251.80	(164.49)	87.31
(iii) Other current liabilities	1,350.77	(497.88)	852.89	1,340.65	(647.89)	692.76
<b>Total current liabilities</b>	<b>2,208.50</b>	<b>(226.55)</b>	<b>1,981.95</b>	<b>2,033.71</b>	<b>(211.80)</b>	<b>1,821.91</b>
<b>Total liabilities</b>	<b>3,611.78</b>	<b>(96.34)</b>	<b>3,515.44</b>	<b>3,434.19</b>	<b>(106.20)</b>	<b>3,327.99</b>
<b>Total equity and liabilities</b>	<b>16,530.18</b>	<b>180.18</b>	<b>16,710.36</b>	<b>16,177.46</b>	<b>74.26</b>	<b>16,251.72</b>

46.2.2 Reconciliation of total equity as at March 31, 2016 and April 1, 2015

Particulars	As at 31.03.2016	As at 31.03.2015
<b>Total equity (shareholders funds) under Previous GAAP</b>	<b>12,918.40</b>	<b>12,743.27</b>
Dividends and its tax not recognised as a liability until declared under Ind AS	232.64	154.63
Fair value impact on other investments	74.48	71.05
Tax impact on fair value of other investments	(25.78)	(24.59)
Depreciation on cost of dismantling capitalised in property, plant and equipment	(0.17)	(1.05)
Unwinding of interest on provision for dismantling liabilities	(1.39)	(12.74)
Tax impact on dismantling liability capitalised (Deemed cost)	0.48	(1.12)
Provision for legal and constructive obligations	(0.67)	(8.21)
Tax impact on provision for constructive obligation	0.23	2.85
Amount transferred to deferred income relating to Government Grant	-	(0.36)
Premium from forward contracts	0.92	-
Realisation of fair value gain/loss on redemption of long-term investment	(12.26)	-
Unwinding of interest income on employee loans	6.56	-
Effect of reclassification of provision for gratuity reclassified to other comprehensive income	(19.12)	-
Effect of reclassification of provision for PRMB reclassified to other comprehensive income	(2.68)	-
Effect of reclassification of provision for retirement benefit to other comprehensive income	(8.61)	-
Amortisation of prepaid expenses towards employee loans	(6.56)	-
Decrease in depreciation cost due to reclassification of leasehold land to prepaid leasehold premium	5.09	-
Increase in depreciation cost due to major spares used during the previous year	(7.48)	-
Reversal of expenditure charged in profit or loss towards major insurance spares	59.08	-
Writing off of non-moving insurance spares	2.38	-
Amortisation of lease rentals towards leasehold land	(5.09)	-
Other adjustments	(2.18)	-
Tax impact on the above adjustments	(4.73)	-
<b>Total adjustment to equity</b>	<b>285.15</b>	<b>180.46</b>
<b>Total equity under Ind AS</b>	<b>13,194.92</b>	<b>12,923.73</b>



## Notes to the consolidated financial statements

## 46.2.3 Effect of Ind AS Adoption on the statement of profit and loss for the year ended March 31, 2016

Particulars	For the year ended 31.03.2016		
	Revised previous GAAP	Effect of Transition to Ind AS	As per Ind AS
Revenue from operations	6,816.00	453.23	7,269.23
Other income	535.41	69.72	605.13
<b>Total income (A)</b>	<b>7,351.41</b>	<b>522.95</b>	<b>7,874.36</b>
Raw materials consumed	1,104.40		1,104.41
Power and fuel consumed	1,864.61	-	1,864.61
Changes in stock of finished goods and work-in-progress	(8.99)	-	(8.99)
Employee benefits expense	1,361.37	36.97	1,398.33
Finance costs	1.21	2.06	3.27
Depreciation and amortisation expenses	423.56	2.56	426.12
Excise duty	-	452.27	452.27
Other expenses	1,554.42	(55.28)	1,499.14
<b>Total expenses (B)</b>	<b>6,300.58</b>	<b>438.58</b>	<b>6,739.16</b>
<b>Profit/(loss) before exceptional items and tax (E=A-B+C+D)</b>	<b>1,050.83</b>	<b>84.37</b>	<b>1,135.20</b>
Exceptional Items (F)	(53.45)	-	(53.45)
Share of profit/(loss) of joint ventures	-	0.05	0.05
<b>Profit/(loss) before tax (G=E-F)</b>	<b>1,104.28</b>	<b>84.42</b>	<b>1,188.70</b>
Tax expense			
(1) Current tax			
a. Current tax	375.64	(0.04)	375.60
b. Current tax relating to previous years	(8.67)	-	(8.67)
(2) Deferred tax	4.82	29.79	34.61
<b>Total Tax (H)</b>	<b>371.79</b>	<b>29.75</b>	<b>401.54</b>
<b>Profit for the year (G-H)</b>	<b>732.49</b>	<b>54.67</b>	<b>787.16</b>
Particulars	For the year ended 31.03.2016		
	Previous GAAP	Effect of Transition to Ind AS	As per Ind AS balance sheet
<b>Other comprehensive income</b>			
<b>I. Items that will not be reclassified to profit or loss</b>			
a) Remeasurements of the defined benefit plan	-	41.06	41.06
b) Income tax relating to items that will not be reclassified to profit or loss	-	14.21	14.21
	-	<b>26.85</b>	<b>26.85</b>
<b>Total other comprehensive income [A(i-ii)+B(i-ii)]</b>	<b>732.49</b>	<b>81.52</b>	<b>814.01</b>

Notes to the consolidated financial statements

Amount in Rs. Crores

46.2.4 Reconciliation of total comprehensive income for the year ended March 31, 2016

Particulars		Details	For the year ended 31.03.2016
<b>Revised profit as per previous GAAP</b>			732.49
Adjustments :			
i.	Adjustment in other income:		
a)	Premium from forward contracts	0.92	
b)	Realisation of fair value gain/loss on redemption of long-term investment	(12.26)	
c)	Unwinding of interest income on employee loans	6.56	
d)	Fair value gain/loss on other investments	74.48	69.70
ii.	Adjustment in employee benefit expenses:		
a)	Effect of reclassification of provision for gratuity reclassified to other comprehensive income	(19.12)	
b)	Effect of reclassification of provision for PRMB reclassified to other comprehensive income	(2.68)	
c)	Effect of reclassification of provision for retirement benefit to other comprehensive income	(8.61)	
d)	Amortisation of prepaid expenses towards employee loans	(6.56)	(36.97)
iii.	Adjustment in finance cost:		
a)	Unwinding of interest cost on dismantling liabilities	(1.39)	
b)	Unwinding of interest cost on constructive obligation	(0.67)	(2.06)
iv.	Adjustment in depreciation and amortisation expenses:		
a)	Decrease in depreciation cost due to reclassification of leasehold land to prepaid leasehold premium	5.09	
b)	Increase in depreciation cost of due to capitalisation of dismantling cost	(0.17)	
c)	Increase in depreciation cost due to major spares used during the previous year	(7.48)	(2.56)
v.	Adjustment in other expenses:		
a)	Reversal of expenditure charged in profit or loss towards major insurance spares	59.08	
b)	Writing off of non-moving insurance spares	2.38	
c)	Amortisation of lease rentals towards leasehold land	(5.09)	56.37
vi.	Other adjustments		-
vii.	Impact on tax expenses		
a)	Tax impact on the adjustments	(29.81)	(29.81)
<b>Total effect of transition to Ind AS</b>			54.67
<b>Profit for the year as per Ind AS</b>			787.16
<b>Other comprehensive income for the year (net of tax)</b>			26.85
<b>Total comprehensive income under Ind AS</b>			814.01

## Notes to the consolidated financial statements

Amount in Rs. Crores

## 46.2.5 Effect of Ind AS adoption on the statement of cash flows for the year ended March 31, 2016

Particulars	For the year ended 31.03.2016		
	Revised Previous GAPP	Effect of Transition to Ind AS	As per Ind AS balance sheet
Net cash flows from operating activities	845.24	35.57	880.81
Net cash flows from investing activities	5.66	308.30	313.96
Net cash flows from financing activities	(543.95)	-	(544.03)
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>306.95</b>	<b>343.87</b>	<b>650.74</b>
Cash and cash equivalents at the beginning of the year	4,627.98	(4,624.30)	3.68
<b>Cash and cash equivalents at the end of the year</b>	<b>4,934.93</b>	<b>(4,280.43)</b>	<b>654.42</b>

## 46.2.6 Analysis of cash and cash equivalents as at March 31, 2016 and April 1, 2015 for the purpose statement of cash flow under Ind AS

Particulars	As at	As at
	31.03.2016	31.03.2015
<b>Cash and cash equivalents for the purpose of statement of cash flows as per Previous GAAP</b>	4,934.93	4,627.98
Reclassification to bank balances other than cash and cash equivalents	(4,280.51)	(4,624.30)
<b>Cash and cash equivalents for the purpose of statement of cash flows as per Ind AS</b>	<b>654.42</b>	<b>3.68</b>

- (a) Reclassification entry is passed in the figures with IGAAP balances in order to make better presentation in terms of Ind AS Figures. However, no adjustment entry has been passed which may effect the total equity or the profit for the year of the Group.

## 47. DISCLOSURE OF ADDITIONAL INFORMATION AS REQUIRED BY THE SCHEDULE III:

(a) As at and for the year ended March 31, 2017								
Name of the entity in the Group	Net Assets i.e total assets minus total liabilities		Share in profit and loss		Share in other comprehensive income		Share in total comprehensive income	
	As % of consolidated net assets	Amount	As % of consolidated net assets	Amount	As % of consolidated net assets	Amount	As % of consolidated net assets	Amount
<b>Associates (Investments as per the Equity method)</b>								
<b>Indian</b>								
NALCO Power Company Limited (NPCIL)	0.00%	0.06	0.00%	0.00	0.00%	0.00	0.00%	0.00
<b>Joint Ventures (Investments as per the Equity method)</b>								
<b>Indian</b>								
Angul Aluminium Park Private Limited	0.27%	27.19	0.05%	0.31	0.00%	0.00	0.05%	0.31
GACL NALCO Alkalies & Chemicals Private Limited	0.25%	25.30	(0.30%)	(2.02)	0.00%	0.00	(0.30%)	-2.02
<b>Total</b>	<b>0.51%</b>	<b>52.54</b>	<b>(0.00)</b>	<b>(1.71)</b>	<b>-</b>	<b>-</b>	<b>(0.00)</b>	<b>(1.71)</b>

## Notes to the consolidated financial statements

Amount in Rs. Crores

(b) As at and for the year ended March 31, 2016								
Name of the entity in the Group	Net Assets i.e total assets minus total liabilities		Share in profit and loss		Share in other comprehensive income		Share in total comprehensive income	
	As % of consolidated net assets	Amount	As % of consolidated net assets	Amount	As % of consolidated net assets	Amount	As % of consolidated net assets	Amount
<b>Associates (Investments as per the Equity method)</b>								
<b>Indian</b>								
NALCO Power Company Limited (NPCIL)	0.0%	0.06	0.0%	0.00	0.0%	0.00	0.0%	0.00
<b>Joint Ventures (Investments as per the Equity method)</b>								
<b>Indian</b>								
Angul Aluminium Park Private Limited	0.10%	12.64	0.02%	0.19	0.00%	0.00	0.02%	0.19
GACL NALCO Alkalies & Chemicals Private Limited	0.00%	(0.38)	(0.06%)	(0.478)	0.00%	-	(0.06%)	(0.48)
<b>Total</b>	<b>0.09%</b>	<b>12.31</b>	<b>(0.00)</b>	<b>(0.29)</b>	<b>-</b>	<b>-</b>	<b>(0.00)</b>	<b>(0.29)</b>

#### 48. SALIENT FEATURES OF ASSOCIATES AND JOINT VENTURES

##### STATEMENT CONTAINING SALIENT FEATURES OF THE FINANCIAL STATEMENT OF ASSOCIATE COMPANIES / JOINT VENTURES (FORM AOC-1)

###### Part "B": Associates and Joint Ventures

Statement pursuant to section 129 (3) of the Companies Act, 2013 related to Associate Companies and Joint Ventures

	Name of Associates/Joint Ventures	Associate		Joint ventures	
		NPCIL-NALCO Power Company Ltd.	Angul Aluminium Park Pvt. Ltd.	GACL NALCO Alkalies & Chemicals Pvt. Ltd.	
1.	<b>Latest audited Balance Sheet Date</b>	31.03.2017	31.03.2017	31.03.2017	
2.	<b>Shares of Associate/ Joint Ventures held by the company on the year end</b>				
	No.	26,000	9,80,000	20,00,000	
	Amount of Investment in Associates / Joint Venture (Rs.)	2,60,000	98,00,000	2,00,00,000	
	Extend of Holding %	26.00%	49.00%	40.00%	
3.	<b>Description of how there is significant influence</b>	[refer note 48.2]	[refer note 48.2]	[refer note 48.2]	
4.	<b>Reason why the associate / joint venture is not consolidated</b>	-	-	-	
5.	<b>Networth attributable to share holding as per latest audited Balance sheet (Rs.)</b>	1,45,061	13,32,18,995	10,11,91,200	
6.	<b>Profit / (Loss) for the year (Rs.)</b>				
	i. Considered in Consolidation	577	14,94,928	(80,77,200)	
	ii. Not Considered in Consolidation	-	-	-	

48.1 None of the associates or joint ventures have commenced operations.

48.2 Voting power as per the percentage of equity held.

## 5 YEARS PERFORMANCE AT A GLANCE - PHYSICAL

Sl	Particulars	Units	2016-17	2015-16	2014-15	2013-14	2012-13
<b>1</b>	<b>Production:</b>						
	Bauxite	MT	68,25,000	63,40,142	57,39,120	62,92,677	54,19,391
	Alumina Hydrate	MT	21,00,100	19,53,000	18,51,000	19,25,000	18,02,000
	Aluminium	MT	3,87,422	3,72,183	3,27,070	3,16,492	4,03,384
	Power (Net)	MU	6,066	5,841	5,131	4,989	6,075
	Wind Power	MU	198	151	175	144	13
<b>2</b>	<b>Export Sales:</b>						
	Alumina	MT	12,43,103	11,74,224	11,84,595	13,09,473	9,44,117
	Aluminium	MT	1,00,591	94,671	60,752	1,01,243	1,44,161
<b>3</b>	<b>Domestic Sales:</b>						
	Alumina, Hydrate and Other Chemicals	MT	51,797	45,702	40,048	33,388	40,605
	Aluminium	MT	2,84,926	2,77,753	2,65,327	2,18,420	2,58,941
	Power (Net)	MU	30	31	28	27	26
	Wind Power	MU	198	151	175	144	13

## 5 YEARS PERFORMANCE AT A GLANCE - FINANCIAL

(Rs. Crore)

Sl	Particulars	2016-17	2015-16	2014-15	2013-14	2012-13
<b>A</b>	<b>Income Statement :</b>					
1	Exports	3,625	3,247	3,307	3,719	3,410
2	Domestic Sales	4,308	3,910	4,464	3,305	3,837
3	Gross Sales (1+2)	7,933	7,157	7,771	7,024	7,247
4	Less : Excise Duty	495	454	509	375	438
5	Net Sales (3 - 4)	7,438	6,703	7,262	6,649	6,809
6	Other Income :					
7	Operating	117	113	121	132	107
8	Non-operating	408	537	673	558	511
9	Operating expenses	6,476	5,879	5,677	5,847	6,010
10	Operating Profit (5+7-9)	1,080	937	1,706	934	906
11	Exceptional Items	40	(54)	(148)	49	-
12	Earning before interest, dep. & taxes (EBIDT)(10+8-11)	1,448	1,528	2,527	1,443	1,417
13	Interest & Financing charges	3	1	-	-	7
14	Earning before dep. & taxes (EBDT) (12-13)	1,445	1,527	2,527	1,443	1,410
15	Depreciation and Amortisation	480	424	414	525	505
16	Profit before Tax (PBT) (14-15)	965	1,103	2,113	918	905
17	Provision for Tax	296	372	791	276	312
18	Net Profit (PAT) (16 - 17)	669	731	1,322	642	593
<b>B</b>	<b>Balance Sheet :</b>					
19	Equity Capital	966	1,289	1,289	1,289	1,289
20	Reserves & Surplus	9,239	11,618	11,508	10,834	10,644
21	Networth (19+20)	10,206	12,907	12,797	12,122	11,933
22	Loans	-	-	-	-	-
23	Net Fixed Assets	7,019	6,468	6,645	6,792	6,629
24	Working Capital	2,365	5,625	5,501	3,949	3,411
25	Capital Employed (23+24)	9,384	12,093	12,146	10,741	10,040
<b>C</b>	<b>Ratios :</b>					
26	Operating Profit Margin (OPM) (%) (10 / 5*100)	14.51	13.98	23.50	14.05	13.31
27	Net Profit Margin (%) (18 / 5 * 100)	8.99	10.91	18.21	9.65	8.71
28	Return on Capital Employed (ROCE) (%) (18/25*100)	7.12	6.04	10.89	5.98	5.91
29	Return on Networth (RONW)(%) (18/21*100)	6.55	5.66	10.33	5.29	4.97
<b>D</b>	<b>Others :</b>					
30	Book value per share of Rs.5 each (in Rs.)	52.80	50.08	49.65	47.04	46.30
31	Earnings per share (in Rs.)	2.98	2.84	5.13	2.49	2.30
32	Dividend per Share (in Rs.)	2.80	2.00	1.75	1.50	1.25

Note: For the year 2015-16, the figures are as per the existing GAAP as reported earlier.



## Reconciliation of Published Quarterly (Reviewed) Financial Results and Annual (Audited) Financial Results for the year 2016-17

(Rs.in crore except sl.no. 11 and 12)

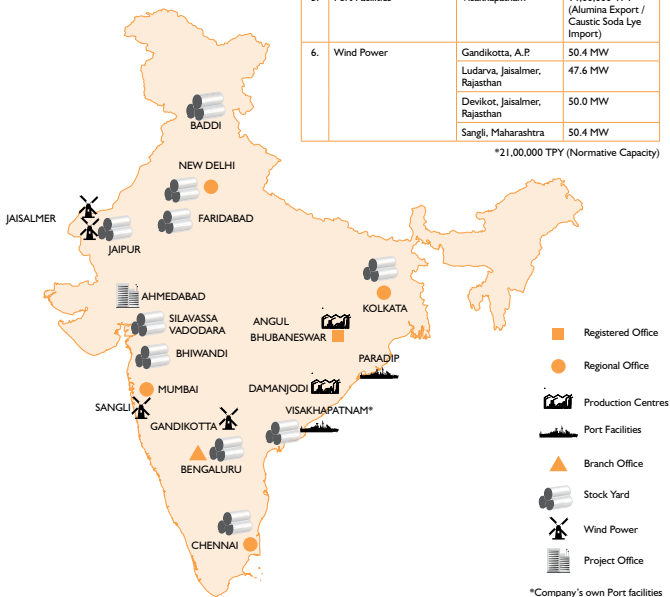
Sl. No.	Particulars	1st Quarter (Reviewed)	2nd Quarter (Reviewed)	3rd Quarter (Reviewed)	4th Quarter (Reviewed)	Total of four Quarters	Full Year (Audited)	Variances
1	2	3	4	5	6	7	8	9
1	Revenue from Operation(Gross)	1,666.11	1,846.07	1,988.13	2,549.71	8,050.02	8,050.02	-
2	Other Income	133.61	136.85	75.85	61.96	408.27	408.27	-
3	Total Expenditure Excl. Depreciation	1,472.03	1,674.31	1,703.49	2,123.23	6,973.06	6,973.06	-
4	Depreciation & Provision	118.79	135.28	117.68	108.61	480.36	480.36	-
5	Profit Before Tax & Exceptional Items	208.90	173.33	242.81	379.83	1004.87	1004.87	-
6	Exceptional Items	-	-	37.13	3.02	40.15	40.15	-
7	Profit Before Tax	208.90	173.33	205.68	376.81	964.72	964.72	-
8	Provision for Tax	73.89	52.10	61.76	108.44	296.19	296.19	-
9	Net Profit(PAT)	135.01	121.23	143.92	268.37	668.53	668.53	-
10	Paid up Equity Share Capital	1,288.62	966.46	966.46	966.46	966.46	966.46	-
11	Earning per Share (Rs.) (Not annualised)	0.52	0.63	0.74	1.39	3.28	2.98	-
12	Aggregate of non-promotor Shareholding:							
	Number of Shares	49,14,55,890	49,14,46,394	49,14,46,394	49,14,46,394	49,14,46,394	49,14,46,394	
	Percentage of Shareholding	19.07	25.42	25.42	25.42	25.42	25.42	

Note: Annual Earning per Share is based on the weighted average no of share holding during the financial year 2016-17.

**NALCO'S VARIOUS PRODUCTION UNITS,  
THEIR LOCATION & INSTALLED CAPACITIES**

1.	Bauxite Mines	Panchpatmali	68,25,000 TPY
2.	Alumina Refinery	Damanjodi	22,75,000 TPY*
3.	Smelter Plant	Angul	4,60,000 TPY
4.	Captive Power Plant	Angul	1,200 MW
5.	Port Facilities	Visakhapatnam	14,00,000 TPY (Alumina Export / Caustic Soda Lye Import)
6.	Wind Power	Gandikotta, A.P.	50.4 MW
		Ludarva, Jaisalmer, Rajasthan	47.6 MW
		Devikot, Jaisalmer, Rajasthan	50.0 MW
		Sangli, Maharashtra	50.4 MW

\*21,00,000 TPY (Normative Capacity)





## OFFICES AND CUSTOMER CONTACT CENTRES

### REGD. & CORPORATE OFFICE

#### NALCO Bhuban

Plot No. - P/1, Nayapalli  
Bhubaneswar - 751 013 (Odisha)  
Phone : 0674-2301988 to 2301999  
Fax : 0674-2300550/2300470/  
2300521/2300640

### UNITS

#### 1. Mines & Refinery

Mines & Refinery Complex  
Damanjodi - 763 008  
Dist. : Koraput (Odisha)  
Phone : 06853-254515/254550/254251  
Fax : 06853-254361/254214

#### 2. Captive Power Plant

Dist. : Angul (Odisha)  
PIN : 759 122  
Phone : 06764-220158  
Fax : 06764-220646

#### 3. Smelter Plant

NALCO Nagar - 759 145  
Dist. : Angul (Odisha)  
Phone : 06764-220110  
Fax : 06764-220738/220206

### PORT FACILITIES

#### Visakhapatnam

Opp. Ore Handling Complex  
Port Area, Visakhapatnam - 530 035  
Andhra Pradesh  
Phone : 0891-2561433/2561435  
Fax : 0891-2561598  
E-mail : gmport@nalcoindia.co.in

#### Paradip (Port Office)

'V' Point  
Badapadia  
Paradip - 751 142  
Phone : 06722-221286  
Fax : 06722-221286  
E-mail : nalco\_paradeep@nalcoindia.co.in

### REGIONAL OFFICES

#### 1. Eastern Region

Ist Floor, J K Millenium Centre  
46-D, Chowringhee Road,  
Kolkata - 700 071  
Phone : 033-662244510-34  
Fax : 033-22810393/22878936  
E-mail : rmeast@nalcoindia.co.in

#### 2. Western Region

215, T.V. Industrial Estate  
S.K. Anire Mang. Work, Mumbai - 400 030  
Phone : 022-24939288/89  
Fax : 022-24950500  
E-mail : bbsinghabu@nalcoindia.co.in

#### 3. Northern Region

Core - 4, 5th Floor, South Tower,  
District Centre, Scope Minar,  
Laxmi Nagar, Delhi - 110 092  
Phone : 011-22010793-94, 22010801  
Fax : 011-22010800/22010790/792  
E-mail : pradyumna.pradhan@nalcoindia.co.in

#### 4. Southern Region

3E, Century Plaza, 560, Anna Salai,  
Teynampet, Chennai-600 018  
Phone : 044-24344162/24349157  
Fax : 044-24343495  
E-mail : rmsouth@nalcoindia.co.in

### BRANCH OFFICE

#### Bengaluru

Ground Floor, Jal Bhavan, No. 5 & 6,  
1st Stage, 1st Phase, BTM Layout,  
Bannerghatta Main Road,  
Bengaluru - 560 029  
Phone : 080-26637297/26637083/  
26637084  
Fax : 080-26530148  
E-mail : nalbir@nalcoindia.co.in

### STOCK YARDS

#### 1. Bhiwandi

National Aluminium Company Limited  
C/o. NSIC Limited, Godown No. 42/57,  
Indian Corp. Compound, Mankoli Naka,  
Mumbai Nasik Road, Thane, Maharashtra  
Bhiwandi - 421 302,  
Phone : 02522-320047

#### 2. Kolkata

National Aluminium Company Limited  
C/o. Balmer Lawrie & Company Limited  
WH, I-Sonapur Road,  
Kolkata - 700 088, West Bengal,  
Phone : 033-24506840

#### 3. Bengaluru

National Aluminium Company Limited  
C/o. M/s. Container Corporation of India  
Limited, Warehouse No. 3, Whitefield Road,  
Bengaluru - 560 066, Karnataka  
Phone : 080-28451327/28  
Fax : 080-28451329

#### 4. Jaipur

National Aluminium Company Limited  
C/o. Central Warehousing Corporation  
Central Warehouse,  
SP-1296, Sitapura Industrial Area  
Tonk Road, Jaipur - 302 022, Rajasthan  
Phone : 0141-2770226  
Fax : 0141-2770817

#### 5. Silvasa

National Aluminium Company Limited  
C/o. NSIC Limited  
Godown : Shalimar Enterprises Corporation  
80/4, Dayat Falia Road,  
Amli (Piparia), Silvasa - 396 230  
(U.T. of Dadra Nagar Haveli)  
Phone : 0260-2641436

#### 6. Faridabad

National Aluminium Company Limited  
C/o. NSIC Limited  
India Garage Equipment,  
Plot No. 51, Sec-6  
Faridabad, Haryana - 121 003  
Phone : 0129-4102430

#### 7. Visakhapatnam

National Aluminium Company Limited  
NALCO Port Facilities  
Port Area, Visakhapatnam - 530 035  
Andhra Pradesh  
Phone : 0891-2721032

#### 8. Baddi

National Aluminium Company Limited  
C/o. NSIC Limited  
Village : Dharampur  
PO : Baddi, Tehsil : Nalagarh,  
Dist. : Solan - 173205, Himachal Pradesh  
Phone : 0179-5657895

#### 9. Chennai

National Aluminium Company Limited  
C/o. NSIC Limited,  
Nafed Ware Housing Complex,  
Ponnammanmedu Post, Madhavaram,  
Chennai - 600 010, Tamil Nadu  
Phone : 044-25530310/320/327/433

#### 10. Vadodara

C/o. NSIC Limited  
Godown No. 1C/2, Central Warehousing  
Corporation, Near Ranoli Flyover, Karachiya,  
Vadodara, Gujarat - 391 350  
Phone : 0265-2240101

#### 11. New Delhi

C/o. NSIC Limited  
Apollo Flege Integrated Logistics Pvt. Ltd.  
Khasra No. 93, Village: Bannoli,  
P.O.: Dhulsiras, New Delhi-110077  
Phone: 011-65356735





## ELECTRONIC CLEARING SERVICE MANDATE FORM

(Please fill in the information in CAPITAL LETTERS. Please TICK wherever it is applicable)

1. Regd. Folio No. :
2. First Shareholder's Name: Shri/Smt./Kum./M/s. \_\_\_\_\_  
\_\_\_\_\_
3. First Shareholder's Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ Pin Code

#### 4. Particulars of Bank:

- Bank Name
- Branch
- Address
- Branch Code (9 Digits MICR Code appearing on the MICR Band of the cheque.
- Please attach a Xerox copy of a cheque or a blank cheque of your bank duly cancelled)

#### Account Type

SB	CA	CC
----	----	----

#### Account Number

#### 5. Date from which the mandate should be effective :

I hereby declare that the particulars given above are correct and complete. If any transaction is delayed or not effected for reasons due to incomplete or incorrect information, I shall not hold National Aluminium Company Limited responsible. I also undertake to advise any change in the particulars of my account to facilitate updation of records for purpose of credit of the amount through NECS (Credit Clearing).

Place :

Date :

\_\_\_\_\_  
Signature of Shareholder(s)

NOTE : In case the shareholder is not in a position to enclose a self-attested photocopy of a blank cheque, a certificate from the Bank as under may be furnished.

\_\_\_\_\_  
Certified that the particulars furnished above are correct as per our records.

Bank's Stamp :

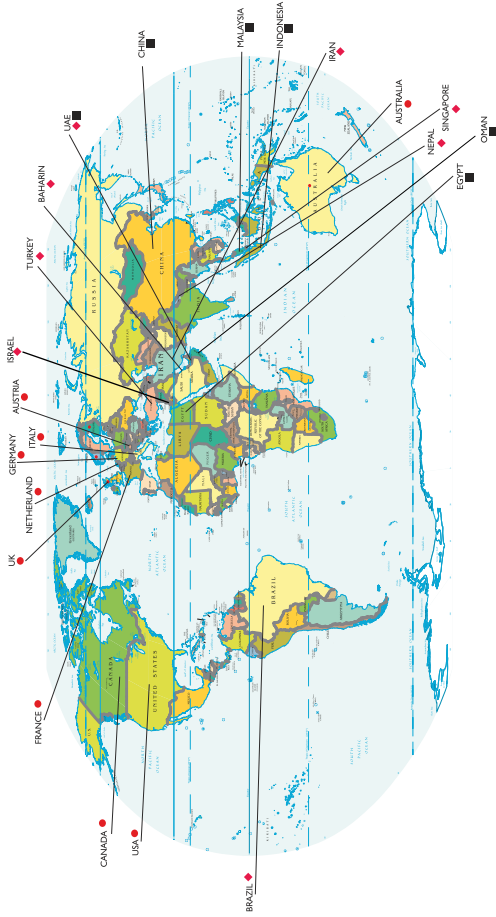
Date:

\_\_\_\_\_  
Signature of the Authorised Official from the Bank

\_\_\_\_\_  
National Aluminium Company Limited, Nalco Bhawan, Nayapalli, Bhubaneswar - 751 013  
INDIA, Tel. 0674-2300677 / 2301988-99, www.nalcoindia.com

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# Global Reach



● TECHNOLOGY ASSOCIATES ■ ALUMINA EXPORT ◆ ALUMINIUM EXPORT

# OUR NEW BUSINESS MODEL



ordinary people, extraordinary attitude

नालको  NALCO

National Aluminium Company Limited

A Navratna PSU under Ministry of Mines  
(Government of India)

[www.nalcoindia.com](http://www.nalcoindia.com)

CIN - L27203OR1981GOI000920